No. 2014-1403

# In the United States Court of Appeals for the Federal Circuit

DEERE & COMPANY,

Plaintiff-Appellant,

v.

DUROC LLC, FKA BUSH HOG, LLC, ALAMO GROUP, INC., BUSH HOG, INC., AND GREAT PLAINS MANUFACTURING INCORPORATED,

Defendants-Appellees.

On Appeal from the United States District Court for the Southern District of Iowa in Case No. 3:09-cv-00095, Senior Judge Charles R. Wolle

### CORRECTED PRINCIPAL BRIEF OF APPELLANT

RODERICK R. MCKELVIE
STEPHEN P. ANTHONY
JAY I. ALEXANDER
R. JASON FOWLER
COVINGTON & BURLING, LLP
1201 Pennsylvania Ave., NW
Washington, D.C. 20004
202.662.6000 phone
202.662.6291 facsimile

Counsel for Appellant Deere & Company

Case: 14-1403 Document: 45 Page: 2 Filed: 07/28/2014

#### **CERTIFICATE OF INTEREST**

Counsel for Appellant Deere & Company certifies the following information in compliance with Federal Rule of Appellate Procedure 26.1 and Federal Circuit Rules 26.1 and 47.4:

1. The full name of every party or amicus represented by us is:

Deere & Company

2. The names of the real parties in interest (if the party named in the caption is not the real party in interest) represented by us are:

None

3. All parent corporations and any publicly held companies that own 10% or more of the stock of the party or amicus curiae represented by us are:

None

4. The names of all law firms and the partners or associates that appeared for the party or amicus represented by us in the trial court or agency or are expected to appear in this Court are:

Roderick R. McKelvie
Stephen P. Anthony
Alan C. Lau
Richard L. Rainey
Jay I. Alexander
R. Jason Fowler
Allison E. Kerndt
Christopher Nofal
COVINGTON & BURLING, LLP
1201 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

Richard J. Sapp Ryan G. Koopmans NYEMASTER, GOODE, P.C. 700 Walnut Street, Suite 1600

Des Moines, Iowa 50309

Karl Fink Shane Delsman Steven C. Schroer FITCH, EVEN, TABIN & FLANNERY 120 South LaSalle Street, Suite 1600 Chicago, Illinois 60603

/s/ Roderick R. McKelvie
Roderick R. McKelvie

Dated: July 28, 2014

# TABLE OF CONTENTS

CERTII	FICA	TE O	F INTEREST	i
TABLE	OF	CON	TENTS	. iii
TABLE	OF	AUTI	HORITIES	. vi
STATE	MEN	NT OF	F RELATED CASES	. ix
JURISE	OICT	IONA	AL STATEMENT	1
STATEMENT OF THE ISSUES ON APPEAL				
INTRO	DUC	TION	1	3
STATE	MEN	NT OF	THE CASE	8
STATE	MEN	NT OF	THE FACTS	11
A	۸.	The I	nvention	11
В	3.	The '	980 Patent	14
		1.	Prosecution and Specification.	14
		2.	The Claims in Issue	16
C	· ·	The I	Oual-Deck Changes the Marketplace.	17
		1.	Bush Hog Redesigns its Flex-Wing Cutters.	18
		2.	Great Plains Also Adopts the Dual-Deck	21
D	).	Proce	eedings in the District Court After Remand	22
E	Ē.	Trial	Proceedings	23
		1.	Duroc's Counsel Opens the Trial By Accusing Deere of Breaching the Duty of Candor.	23
		2.	Deere's Motion to Preclude Further Allegations or Evidence of Inequitable Conduct.	25

		3.		ndants Continue to Implicate Inequitable Conduct In tioning Deere Witnesses.	28
		4.		e's Evidence of Infringement and Defendants' nued Emphasis on Deere's Candor	30
		5.		ndants Continue to Invoke Deere's Conduct Before TO in Introducing Validity Evidence	31
			a)	Defendants' anticipation case focused on the M&W	32
			b)	Defendants' obviousness case focused on the M&W and lawnmowers	35
			c)	Defendants' inadequate written description defense.	36
		6.	Rule	50 Motions and Jury Instructions	37
		7.	Defer	ndants Close the Trial with the Duty of Candor	38
		8.	Judgr	ment on Appeal.	39
SUM	IMAR`	Y OF T	ГНЕ А	RGUMENT	39
ARG	UMEN	NT	•••••		41
I.				Abused its Discretion in Denying Deere's Motion	42
	A.	Defe	ndants'	Arguments Were Legally Improper	43
	B.	The F	Prejudi	ce to Deere Requires a New Trial.	46
		1.		ndants' Improper Arguments Permeated the Entire	47
		2.	The I	District Court Took No Specific Curative Action	49
		3.		Severity of the Verdict in Comparison to the Weight Evidence	52

II.		Deere Is Entitled to JMOL that Duroc and Bush Hog, Inc. Infringe the Asserted Claims of the '980 Patent.		
III.	The District Court Erred in Denying Deere's Motion For JMOL of No Anticipation.			54
	A.	Deer	e is Entitled to JMOL that the M&W Does Not Anticipate	54
		1.	The Verdict is Based on a Legally Erroneous Claim Construction.	55
		2.	The M&W is a Single-Deck Cutter That Lacks an "Upper Deck Wall."	58
	B.		nundsen Does Not Anticipate the Claims of the '980 at	60
IV.	Deer	e is En	titled to JMOL or a New Trial on Obviousness	62
V.	Deere is Entitled to JMOL That the Claims of the '980 Patent Meet the Written Description Requirement			66
CON	ICLUS	ION		68

# TABLE OF AUTHORITIES

<u>Cases</u>
Am. Calcar, Inc. v. Am. Honda Motor Co., 651 F.3d 1318 (Fed. Cir. 2011)
Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336 (Fed. Cir. 2012)6
Atl. Research Mktg. Sys. v. Troy, 659 F.3d 1345 (Fed. Cir. 2011)6
Bettcher Indus., Inc. v. Bunzl USA, Inc., 661 F.3d 629 (Fed. Cir. 2011)6
Blair v. Wills, 420 F.3d 823 (8th Cir. 2005)
<i>Burroughs v. Mackie Moving Sys. Corp.</i> , 690 F.3d 1047 (8th Cir. 2012)
Butamax (TM) Advanced Biofuels LLC v. Gevo, Inc., 746 F.3d 1302 (Fed. Cir. 2014)6
<i>Crown Packaging Tech., Inc. v. Ball Metal Bev. Container Corp.</i> , 635 F.3d 1373 (Fed. Cir. 2011)
Deere & Co. v. Bush Hog, LLC, 703 F.3d 1349 (Fed. Cir. 2012)viii, 3, 9, 21, 22, 56, 6
Exergen Corp. v. Wal-Mart Stores, Inc., 575 F.3d 1312 (Fed. Cir. 2009)
<i>Gilster v. Primebank</i> , 747 F.3d 1007 (8th Cir. 2014)
<i>Gray v. Bicknell</i> , 86 F.3d 1472 (8th Cir. 1996)4
<i>Harrison v. Purdy Bros. Trucking Co.</i> , 312 F.3d 346 (8th Cir. 2002)5
<i>In re Am. Acad. of Sci. Tech Ctr.</i> , 367 F.3d 1359 (Fed. Cir. 2004)5
<i>In re Clay</i> , 966 F.2d 656 (Fed. Cir. 1992)6

n re Cyclobenzarine Hydrochloride Extended–Release Capsule Patent Litig., 676 F.3d 1063 (Fed. Cir. 2012)	63
n re Kahn, 441 F.3d 977 (Fed. Cir. 2006)	65
nTouch Techs., Inc. v. VGO Commc'ns, Inc., 751 F.3d 1327 (Fed. Cir. 2014)	3, 65
Kinetic Concepts, Inc. v. Smith & Nephew, Inc., 688 F.3d 1342 (Fed. Cir. 2012)	62
<i>Koito Mfg. Co. v. Turn-Key-Tech, LLC,</i> 381 F.3d 1142 (Fed. Cir. 2004)	55
Koufakis v. Carvel, 425 F.2d 892 (2d Cir. 1970)	51
KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398 (2007)	65
CaBounty Mfg., Inc. v. U.S. Int'l Trade Comm'n, 958 F.2d 1066 (Fed. Cir. 1992)	44
Lampi Corp. v. Am. Power Prods., 228 F.3d 1365 (Fed. Cir. 2000)	67
NP Eng'g Plastics, Inc. v. Miller Waste Mills, Inc., 275 F.3d 1347 (Fed. Cir. 2001)	3, 54
Magnivision, Inc. v. Bonneau Co.,         115 F.3d 956 (Fed. Cir. 1997)	7, 48
Malandris v Merrill Lynch, Pierce Fenner & Smith Inc., 703 F.2d 1152 (10th Cir. 1981)	51
Monsanto Co. v. Bayer Bioscience N.V., 514 F.3d 1229 (Fed. Cir. 2008)	44
Ondrisek v. Hoffman, 698 F.3d 1020 (8th Cir. 2012)	65
Park West Galleries, Inc., v. Hochman, 692 F.3d 539 (6th Cir. 2012)	51
PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315 (Fed. Cir. 2000)	47
Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005)	

<i>Plantronics, Inc. v. Aliph, Inc.</i> , 724 F.3d 1343 (Fed. Cir. 2013)	57
Seachange Int'l, Inc. v. C-COR Inc., 413 F.3d 1361 (Fed. Cir. 2005)	68
Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276 (Fed. Cir. 2011)	7, 44, 52
TI Gr. Auto Sys. (N. Am.), Inc. v. VDO N. Am., LLC, 375 F.3d 1126 (Fed. Cir. 2004)	55, 58
Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co., 308 F.3d 1167 (Fed. Cir. 2002)	42, 55
Whitserve, LLC v. Computer Packages, Inc., 694 F.3d 10 (Fed. Cir. 2012)	64, 65
Whittenburg v. Werner Enters., Inc., 561 F.3d 1122 (10th Cir. 2009)	51
Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc., 609 F.3d 1308 (Fed. Cir. 2010)	65
Z4 Technologies, Inc. v. Microsoft Corp., 507 F.3d 1340 (Fed. Cir. 2007)	43
Statutes	
28 U.S.C. § 1295(a)	1
28 U.S.C. § 1331	1
28 U.S.C. § 1338(a)	1
Rules	
Fed.R.Civ.P. 9(b)	44
Fed.R.Civ.P. 50	37, 42
Fed.R.Civ.P. 59	39

Case: 14-1403 Document: 45 Page: 10 Filed: 07/28/2014

### STATEMENT OF RELATED CASES

An earlier appeal and cross-appeals from the United States District Court for the Southern District of Iowa, in case number 3:09-cv-00095 (CRW), were before this Court in *Deere & Company v. Bush Hog, LLC and Great Plains Manufacturing, Inc.*, Nos. 11-1629, 11-1630, 11-1631. That appeal was heard by a panel composed of Chief Judge Rader and Circuit Judges Newman and Plager, and decided on December 4, 2012. The opinion is published as *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349 (Fed. Cir. 2012). A5249-60.

Counsel for Deere & Company are not aware of any other cases pending in this or any other court that will directly affect, or be directly affected by, this Court's decision in this appeal.

Case: 14-1403 Document: 45 Page: 11 Filed: 07/28/2014

#### JURISDICTIONAL STATEMENT

The district court had jurisdiction under 28 U.S.C. §§ 1331, 1338(a). Final judgment was entered from a jury verdict on December 19, 2013, and post-trial motions for a new trial and judgment as a matter of law were resolved by order dated March 5, 2014. Deere & Company ("Deere") timely appealed on March 27, 2014. This Court has jurisdiction under 28 U.S.C. § 1295(a).

### STATEMENT OF THE ISSUES ON APPEAL

- 1. Did the district court abuse its discretion in denying Deere's motion for a new trial in light of Defendants' highly prejudicial emphasis throughout the trial on Deere's alleged violation of the duty of candor to the PTO, even though inequitable conduct was not pled, could not be proven, and was not properly before the jury in the case?
- 2. Did the district court err in denying Deere's motion for a judgment that the accused products manufactured and sold by Defendants Duroc, LLC and Bush Hog, Inc. infringe the asserted claims of U.S. Patent No. 6,052,980 (the '980 patent) as a matter of law where overwhelming evidence established infringement and these Defendants offered no witness to deny infringement?
- 3. Did the district court err in denying Deere's motion for a judgment that the asserted claims of the '980 patent are not anticipated as a matter of law where the judgment of anticipation rested on an erroneous construction of the

claim term "upper deck wall" and the evidence of anticipation otherwise consisted primarily of conclusory expert opinion?

- 4. Did the district court err in denying Deere's motion for a judgment that the asserted claims of the '980 patent are not obvious as a matter of law where Defendants presented only conclusory evidence of a motivation to combine or modify alleged prior art and the court did not adequately caution the jury against impermissible use of hindsight?
- 5. Did the district court err in denying Deere's motion for a judgment that the asserted claims of the '980 patent find adequate written description in the specification where Deere's amendment of claim 1 to recite a "substantially planar" lower deck both narrowed and accomplished the goals of the original claim disclosure of a perfectly planar deck?

Case: 14-1403 Document: 45 Page: 13 Filed: 07/28/2014

#### INTRODUCTION

In the earlier appeal, this Court negated Defendants' principal defense in the case: that the accused rotary cutters do not meet the "into engagement with" limitation because a connector is present between the upper and lower deck walls. This was the argument on which Defendants had won summary judgment in the district court. This Court reversed, explaining that direct contact was not required between upper and lower deck walls. *Deere*, 703 F.3d at 1352-55.

On remand for trial, Defendants knew, as well, that their obviousness defense had serious flaws. That defense relied on combining teachings from lawnmower designs with rotary cutters. But Mr. Weaver, Great Plains' product development manager, had already testified that "I don't think we would look at a lawn mower if we were designing a rotary cutter." A4864-65. Bush Hog's product manager, Mr. Harrington, had testified similarly that "I wouldn't look at [a finishing mower] to gain...any knowledge or comparisons to what we wanted to build in a rotary cutter." A4792.

That left anticipation. But Defendants' best prior art, an M&W rotary cutter sold prior to Deere's patent, was a single-deck device with a supporting channel structure on top. This was the type of "current style deck" that the '980 patent distinguished as having structural components that make it difficult to clean and create traps for material and/or water to accumulate. '980 patent, 1:19-35 (A0024).

Case: 14-1403 Document: 45 Page: 14 Filed: 07/28/2014

Defendants' other allegedly anticipatory prior art, the 1958 Gudmundsen push mower patent, A5171-81, relied on a tenuous inherency argument.

Defendants had good reason to be concerned about the strength of these defenses, so they turned to a new argument at trial: inequitable conduct. Defendants had never pled this defense in over four years of litigation, and this Court's precedent prohibits trial of inequitable conduct to a jury. Defendants knew that the two witnesses involved in the patent prosecution—the inventor (Henry Friesen) and the prosecuting attorney (Jimmie Oaks)—would not appear at trial. A1181-85; A1290-91. No record exists that either was aware of the prior art that Defendants would claim was withheld from the PTO by Deere.

Nevertheless, in his opening statement, one of Defendants' lead trial lawyers told the jury that the case would be about Deere's violation of the "duty of candor." A1804-10. The lawyer displayed the inventor's oath from the prosecution history and pointed to Mr. Friesen's declaration, "under penalty of perjury," that all his statements were true. A1804. He described a patent applicant's duty to "tell the examiner whatever he or she knows about the prior art." A1804. He showed the jury the applicant's information disclosure statement and pointed out that it contained only one prior art reference. A1805. He then identified several items of prior art (including the M&W, the Bush Hog 2615, and the Oka patent) that were not submitted to the PTO. A1808-09. Not only did

Defendants have no prospect of proving that either Friesen or Oaks was aware of the M&W or Oka; the Bush Hog 2615 and the M&W were completely cumulative of prior art described in the text of the patent application. More to the point, these statements could only be relevant to an inequitable conduct defense that was not supposed to be in the case.

In response to this surprise attack, Deere filed a motion in limine early the next morning to prevent Defendants from any further attempts to inject inequitable conduct into the case. A1297-1303. In colloquy later that morning, the court asked Defendants whether they intended to amend their pleadings to add inequitable conduct. Defendants accurately responded: "there's no record on it right now." A1830. Defendants claimed simply to be informing the jury as to what prior art was before the patent examiner during prosecution. A1831-32; A1837. But that was disingenuous—immediately before opening statements, the court had told the jury that the face of the patent contained the list of references cited to the PTO. A1742. Defendants could have made their point at any time simply by showing the jury that list on the face of the patent. There was no legitimate reason to talk about the duty of candor or what references Deere did or did not provide to the PTO.

Rather than putting a stop to any further attempts to prejudice the jury, the court allowed Defendants to develop "evidence supporting the very serious charge

of inequitable conduct." A1837. Defendants took that as license to raise every possible inference of misconduct by Deere employees throughout the remainder of the trial. Defendants elicited an admission from one witness (Tony Grande) that he was familiar with the M&W company. A2005-06. Another witness (Debra Harrison) knew Mr. Oka, who had filed a patent for Deere more than ten years prior to Friesen, and at one time had worked in the same office as Friesen. A1986-90. None of Grande, Harrison or Oka had any involvement with the prosecution of the patent-in-suit, A1883; A1886-87; A2004, and Defendants did not attempt that proof. Defendants continued by cross-examining Deere's expert as to what items of prior art were "provided to the Patent Office by Deere." A2818-19. Defendants elicited testimony from one of their experts that "the most significant prior art" was "never *furnished* to the patent examiner." A3583. This expert also testified, gratuitously, that Oka was a Deere employee "who was an associate of Mr. Friesen." A3577. Additional instances of Defendants' attempts to raise inferences of misconduct by Deere occurred throughout the trial.

Defendants continued their attack in closing argument despite Deere's continued objections and request for a curative instruction, which were denied. A1317-18; A4341-42; A4354-55. Defendants' lead lawyer told the jury how the evidence had shown "the way the Patent Office was *treated* in this case." A4657. He told the jury that the "Patent Office...didn't *get*" the important prior art,

Case: 14-1403 Document: 45 Page: 17 Filed: 07/28/2014

A4660-61, and that "You have ... Mr. Friesen working with Mr. Oka," A4660-61. He finished his argument by imploring the jury: "You should think about Deere during the patent process with regard to candor." A4681. Another of Defendants' lawyers piled on, telling the jury that "we have to be careful about issuance of patents" and "that can only happen if there's full disclosure and consideration of all relevant prior art," but "That didn't happen here." A4694.

Deere objected on several occasions to these tactics, but to no avail. The prejudice caused by Defendants' conduct is manifest. The jury verdict, rendered after only a few hours of deliberation, A1423, was a virtual clean sweep for Defendants. A0002-07. This happened despite the fact that the Bush Hog Defendants put on virtually no non-infringement defense. Defendants' experts' testimony on invalidity was conclusory and lacking in any detail as to a motivation to combine references.

This Court has long recognized that "inequitable conduct charges cast a dark cloud over the patent's validity and paint the patentee as a bad actor...[and] deflect[] attention from the merits of validity and infringement issues." *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc). It is the "atomic bomb" of patent litigation. *Id.* The Court has erected barriers to prevent its misuse, such as requiring a defendant to plead the underlying bases of the defense with particularity. This requirement affords the patentee fair

Case: 14-1403 Document: 45 Page: 18 Filed: 07/28/2014

notice and eliminates the defense where it clearly lacks merit. *E.g., Exergen Corp.* v. *Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1325-29 (Fed. Cir. 2009). Moreover, because this is an "equitable" issue, it is inappropriate to try inequitable conduct to a jury. *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1333-34 (Fed. Cir. 2011).

Defendants' conduct in this case ran roughshod over this Court's carefully crafted scheme to safeguard against a defendant smearing a patent holder in front of a jury to distract their attention from the merits. Unfortunately, that safeguard failed in this case. It is equally unfortunate that the only fair remedy here is to grant a new trial. This Court should reverse the judgment, direct a verdict on certain infringement and invalidity issues as to which Defendants' proof was legally insufficient, and remand for a new trial of the remaining matters in dispute.

### STATEMENT OF THE CASE

This case involves rotary cutters—large, agricultural devices pulled behind tractors to trim pastures or shred crops. These devices are typically 10-20 feet wide and weigh on the order of two tons. A2420-21. Deere developed an innovative dual-deck design that solved several problems in existing rotary cutter deck designs. Those designs generally involved a single steel deck plate that was supported by beam-like structures either above or below the deck. When placed above the deck, these structures collect debris and moisture, causing rust. When

placed below the deck, the structures inhibit the flow of cut material, resulting in cutting inefficiency. Henry Friesen solved these problems with a dual-deck design—claimed in the '980 patent—that comprises upper and lower deck walls configured like an airplane wing. Friesen's invention disposes of the problematic structural members, because the upper and lower deck walls themselves provide most of the torsional strength needed to support the device.

Deere's introduction of the dual-deck design changed both the rotary cutter markets and Deere's position in those markets. In response, Deere's competitors worked to adopt the dual-deck, which Defendants recognized as "the way of the future." A4966. Once Defendants entered the market with cutters mimicking Deere's dual-deck, Deere filed the present suit for infringement on June 5, 2009. Deere named as defendants Bush Hog, LLC and Great Plains Manufacturing, Inc. ("Great Plains"). After discovery closed, the district court granted defendants' motion for summary judgment of no infringement in 2011. This Court reversed and sent the case back for trial in 2012. *Deere*, 703 F.3d at 1360.

While the case was pending, Alamo Group, Inc. ("Alamo") acquired substantially all of the assets of Bush Hog, LLC—now known as Duroc, LLC ("Duroc")—and holds those assets in a subsidiary, Bush Hog, Inc. A1304. After remand, Deere amended its complaint to join Alamo and Bush Hog, Inc. The amended complaint alleges infringement of various claims of the '980 patent by

(1) Duroc, Alamo, and Bush Hog, Inc. (collectively, the "Bush Hog Defendants"), and (2) Great Plains (collectively with the Bush Hog Defendants, the "Defendants"). Defendants answered and alleged non-infringement and invalidity, but not inequitable conduct. A1079; A1088-89; A1095-1100.

Following further discovery and extensive motions practice, including the district court's construction of the claim term "upper deck wall," the court held a thirteen-day jury trial. The jury returned a verdict of non-infringement by all Defendants, and declared the asserted claims of the '980 patent invalid as anticipated (except for claim 3), obvious, and lacking an adequate written description. A0003-06. The court entered judgment for Defendants on December 19, 2013. A0001.

Thereafter, Deere moved for a new trial based upon Defendants' trial misconduct. Deere further moved for a judgment of infringement by the Bush Hog Defendants, and that the '980 patent is not invalid as a matter of law due to the trial court's erroneous construction of "upper deck wall" and the absence of legally sufficient evidence supporting the verdicts. A1427-99. On March 5, 2014, the district court denied Deere's post-trial motions in a terse discussion insisting upon the trial's fairness and the adequacy of the evidence without record or legal citation (and, indeed, contrary to the legal standards established by this Court and the Eighth Circuit). A0008-11.

## STATEMENT OF THE FACTS

### A. The Invention.

In the mid-1990's, Deere's engineers set out to improve Deere's rotary cutters in a way that would differentiate them from competitors. A1874. The cutters of the time were typified by Deere's Model 1518, a 15-foot flex-wing rotary cutter:



Case: 14-1403 Document: 45 Page: 22 Filed: 07/28/2014

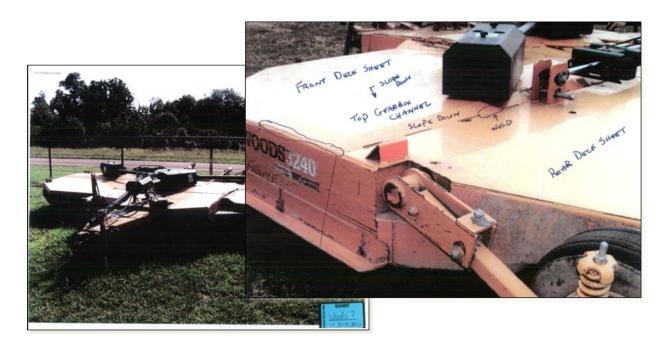
A5095 (labels added). The 1518 has a gearbox bolted to a gearbox saddle—a structural channel running from left to right on the wings of the cutter.<sup>1</sup> The channel both anchors the gearbox and adds torsional stiffness to the wing. A1869-70. The cutter also has stringers and a front sill that provide strength along the edges. A1870. Although functionally necessary, such structures were problematic. Because the decks were cluttered with structures, debris and moisture built up on the decks, causing corrosion. A1873-74; A4768.

At least one other rotary cutter manufacturer had sought to alleviate the corrosion problem by locating most of the supporting structure beneath the deck. The Woods company made the "Batwing," which had a relatively smooth convex single deck, A4770, with only narrow channels attached to the top. A4783-84.

The top of the Batwing (as identified by Mr. Dewey, former engineering manager for the Woods Batwing, A4759-65):

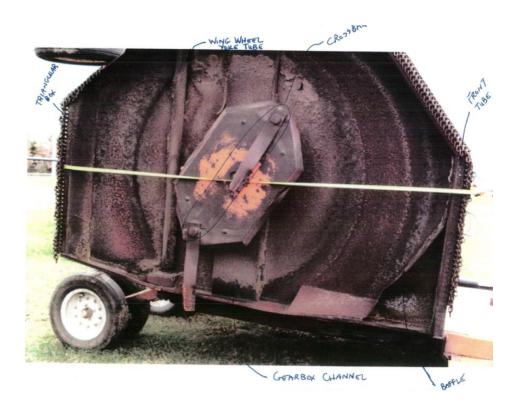
92.

Within the industry, manufacturers use the terms "saddle," "channel," and "strongback" to refer to these same structures. A1869; A2426-27; A3478; A4390-



A1123-24.

# And the underside:



A1131. *See also* A5238. Moving the structural components from the top of the deck to the underside creates separate problems by restricting the flow of material through the cutting chamber. A1884-86; A2428.

In this environment, Mr. Friesen, inspired by the design of an airplane wing, developed the invention claimed in the '980 patent. A0020-26; A4769-70. As he described in an internal Invention Disclosure Statement, A5101, the "dual-deck" invention includes: (1) a smooth, curved upper deck surface with the stringers, saddles and plates removed; (2) a lower deck likewise free of structural members, except for baffles to guide the flow of cut material; (3) saddles and stringers placed between the decks; and (4) the decks joined to make a box-like structure to provide good torsional strength.

Distinguishing his invention from existing smooth-top cutters, Mr. Friesen made a note on a Woods Batwing brochure he transmitted to Deere's patent attorney: "The top is smooth but the underside has structural members interfering with material flow. It is not two decks forming a box section for torsional rigidity." A5109. *See also* A1884.

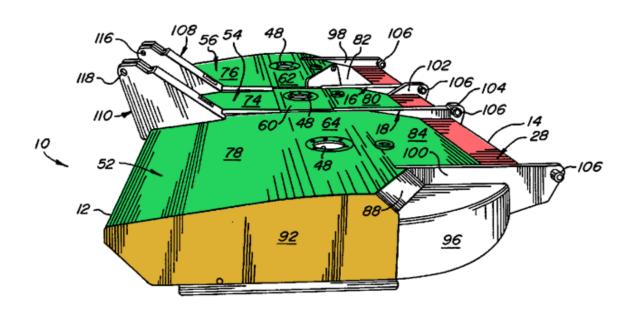
### B. The '980 Patent.

# 1. Prosecution and Specification.

The '980 specification describes the problem with the then-current style decks having structural components that made them difficult to clean and created

traps for material and water to accumulate and cause rusting. *See* '980 patent, 1:21-25 (A0024). Moving the structural components to the underside of the decks was inefficient because they interfered with the smooth flow of cut material. *Id.*, 1:29-35 (A0024).

The invention disclosed in the '980 patent, by contrast, is a dual-deck consisting of an upper deck wall, with a generally convex smooth surface that is easy to clean (composed of sections 52, 54, 56 indicated in green), and a horizontal lower deck wall free of structural members except for material flow baffles (protruding portion 28 shown in red). The invention provides that the upper and lower deck walls be joined together with end walls to create a box structure having good torsional strength. *Id.*, 1:37-67 (A0024).



*Id.*, Fig. 1 (A0021) (coloring added); A2430 (discussing Fig. 1); A2625 (same). *See also* '980 patent, 2:44-52 (A0024); *id.*, 3:4-7 (A0025); *id.*, 4:28-32 (A0025).

In addition to the description of the prior art in the patent application, Deere submitted to the PTO a copy of the Woods Batwing brochure and told the Examiner that the Batwing devices "feature a smooth deck that sheds water and debris preventing corrosion." A4902. The Examiner initially rejected all claims, finding certain of them anticipated by the Cerny, A5144-51, and Bowie, A5117-34, patents, and others obvious in light of Cerny, Bowie, and the Prestka patent. A4890-92. In response, Deere distinguished the claimed invention from Cerny's plastic upper deck. Deere also distinguished Bowie and amended claim 1 to require the lower deck to be "substantially planar" in contrast to Bowie. A4882-85. The Examiner allowed the claims as amended, A4878, and the '980 patent issued on April 25, 2000.

#### 2. The Claims in Issue.

Independent claim 1 of the '980 patent (terms underlying this appeal emphasized) provides:

1. A rotary cutter deck comprising: a lower, *substantially planar*, *horizontal deck wall*; *an upper deck wall* including a central portion elevated above said lower deck wall, and front and rear portions respectively sloped downwardly and forwardly, and downwardly and rearwardly from said central portion into engagement with, and being secured to, said lower deck wall; *and right and left-hand end wall structures respectively being joined to right and left-hand ends of* 

# said lower and upper deck walls to thereby define a box section having torsional stiffness.

A0025. Dependent claims add limitations to features such as end wall aprons (claim 2), front and rear cross tubes (claim 3) and the upper deck surface being smooth and substantially obstruction-free to allow easy cleaning (claim 6). At trial, Deere asserted that the Bush Hog Defendants infringed claims 1-3 and 6 and that Great Plains infringed claims 1-2 and 6.

## C. The Dual-Deck Changes the Marketplace.

Deere began selling dual-deck cutters in 1999. A1887. At that time, Deere was "third or fourth" in the rotary cutter market, A1872, behind competitors such as market leader Bush Hog. By 2002, Deere's dual-deck product line included 15-foot flex-wing rotary cutters—the cutters at issue in this case. A1889. For example, the Deere HX-15 dual-deck flex-wing cutter:



A4996-99. The introduction of Deere's dual-deck flex-wing cutters dramatically increased Deere's sales and market position. A1871-72; A1904; A2240-49; A2874-75.

Deere's competitors took notice. Mr. Harrington (Bush Hog's product manager, A4789), Mr. Moore (Bush Hog's senior product engineer, A2104), and Mr. Weaver (Great Plains' manager of product development, A4847)—each with decades of experience and awareness of the products in the rotary cutter markets—recognized that Deere's dual-deck design was a unique addition to the marketplace. A4841-42; A2135-36; A4863-64. *See also* A4419-20. Deere and its competitors recognized the dual-deck's resolution of various problems caused by the exposed structural components in pre-existing deck designs. *See e.g.*, A1872-75; A1880-86; A4768; A4771; A2876-77; A2105-07; A2113; A4816; A4795; A4796-97; A4801; A4811; A4817; A4820; A4583.

# 1. Bush Hog Redesigns its Flex-Wing Cutters.

Bush Hog quickly experienced "erosion" in sales of its single-deck cutters and "loss of [market] share to John Deere." A4949; A4953-54; A4827-28.<sup>2</sup> Bush Hog's sales representatives indicated they were losing market share because of the "Deere double dome deck" and that the Deere "dome deck [is] killing us." A4967-

Both Deere's and Duroc's damages experts agreed that customers purchased Deere's dual-deck flex-wing cutters at the growing expense of single-deck cutters like the Bush Hog 2615. A2891-96; A3758-60.

69. *See also* A3319-20 (indicating that Bush Hog's salespeople "were screaming for double decks"). Indeed, Bush Hog's marketing department thought "the double deck was the way of the future." A2130-31; A4966.

After several failed efforts to come up with its own design, including switching from double-deck concepts back to single-deck concepts, A4933-36; A2107-25; A5012-14; A3304, Bush Hog redoubled its efforts and in 2006, introduced its accused dual-deck 2715 model flex-wing cutter "to compete with" Deere's dual-decks. A4934. Its stated goal was to "stop the sales erosion caused by John Deere." A4949. As Mr. Harrington testified, "it wasn't until after Bush Hog saw John Deere's patent that it came out with a dual-deck design." A4812.

Bush Hog promoted its model 2715 dual-deck cutter as a "TOUGH EZ Clean Double Deck" cutter, A4792-93:

Case: 14-1403 Document: 45 Page: 30 Filed: 07/28/2014



A5096 (with magnification); A5099 (with magnification). *See also* A4923; A4981. In emphasizing the design's "toughness," Bush Hog understood that the dual-deck also provides torsional resistance. A4801-02.

Bush Hog described its new design as—like Deere's—"a double deck with structure between the top and the bottom deck." A4949; A4827. Bush Hog conjectured that by indirectly joining their upper and lower decks—through spacers or connectors between the decks—they could avoid infringing the '980 patent. A4803; A2157-58; A4803; A4815; A4946-48. This attempt to avoid

infringement with a trivial design change ultimately proved unsuccessful. *Deere*, 703 F.3d at 1352-55.

### 2. Great Plains Also Adopts the Dual-Deck.

By 2005, Great Plains' customers likewise requested that it offer a smooth top rotary cutter. A2358; A4863. Dealers reported sales lost to Deere dual-deck cutters, A2358; A5022; A5072; A4862-63, and Great Plains' salespeople made clear that they needed competing smooth top cutters "badly." A5027. *See also* A2355-56; A5024.

Great Plains launched its Land Pride dual-deck series 55 and 65 cutters in August of 2006. A2361; A5062; A4853-55. Like the Bush Hog cutters, the Land Pride cutters had spacers between the upper and lower decks. A4862.

Great Plains' August 2007 promotional brochure touted its new dual-deck cutters as "Double Your Smooth," emphasizing its smooth top and smooth bottom:



A5023. See also A5010; A5023; A5025; A5026; A5028; A5047-59; A5065-71.

## D. Proceedings in the District Court After Remand.

After remand from this Court's reversal of the district court's summary judgment of non-infringement, which rejected Defendants' arguments that the spacers designed into the accused products avoided infringement, *Deere*, 703 F.3d at 1354-55, Deere amended its complaint to join Alamo and Bush Hog, Inc. as defendants, and name Duroc as a defendant to reflect the post-transaction name of original defendant, Bush Hog, LLC. A1071-72.<sup>3</sup>

Defendants answered and asserted counterclaims for non-infringement and invalidity, but not inequitable conduct. A1079; A1088-89; A1095-1100. After supplemental discovery, the parties filed various motions for summary judgment on infringement and validity, A0059-60, which the court denied on August 23, 2013. A1171-76.

On August 29, Alamo and Bush Hog, Inc. moved for construction of the term "upper deck wall." A1177-78. The district court granted the motion, finding the term should be read according to what the court perceived as the "plain and ordinary meaning of the words of the claim, with no size requirements or

Alamo continued sales of the accused Bush Hog model 2710 and 2715 cutters through its Bush Hog, Inc. subsidiary, A3908, using the same plant, equipment, and many of the same employees, A3413-14, and directed by overlapping corporate officers, A3412; A5261; A5262; A5263; A5264. Alamo also offered to sell its subsidiary's products over the Internet. A3415-17.

limitation." A0016. Defendants took that construction to mean that a structural channel as little as two inches wide could be an "upper deck wall" within the meaning of the claims. A1812-13; A3489; A3668.

The parties filed a proposed pretrial order on November 12, 2013, in which Defendants identified the issues to be tried as infringement and validity, but not inequitable conduct. A1189-91; A1290-91. At the pretrial conference the court considered the parties' proposed jury instructions. A1673-75. Contrary to Deere's obviousness proposal based on Federal Circuit Bar Association Model instruction B.4.c, A1266-67, Defendants proposed (and the court gave) an instruction that did not explain that inventions are frequently combinations of what is already known, did not instruct the jury to consider the motivation to combine the elements of the invention, and did not caution the jury against impermissible use of hindsight. A1268; A1282; A1311-12; A1327-28; A1398-1402.

### E. Trial Proceedings.

1. Duroc's Counsel Opens the Trial By Accusing Deere of Breaching the Duty of Candor.

The trial commenced on December 2, 2013. Defendants split up the topics for opening. A1781-82. Addressing validity, Duroc's lead trial lawyer highlighted the applicant's duty of candor before the PTO:

And you can see that this is the application for United States patent, and you'll also see...Mr. Friesen is expressly appointing...Jimmie R. Oaks from the Deere Patent Department....

And...Mr. Friesen declares under penalty of perjury that everything that he is saying here is true.

A1804. Counsel continued, explaining that "the law requires the applicant to tell the examiner whatever he or she knows about the prior art that might be important to the examiner's decisions on whether to allow the patent. And...we call this the applicant's duty of candor." A1804-05. Counsel concluded the lesson, "[o]ne way the applicant can satisfy this duty is by bringing certain prior art to the attention of the examiner..." A1805.

Turning to the '980 application, counsel pointed to the prior art disclosure, "and as you can see..., on the disclosure statement there is a single piece, only one[,]...that they called to the attention of the Patent Office, and it's...a brochure of the Woods 3240 model." A1805. Counsel then identified: (1) "the M & W rotary cutter," stating "they never gave [the PTO] a brochure for this. This was on the market being sold, M&W rotary cutter"; (2) "the [Bush Hog] 2615 legend, ...which had been on the market. They didn't submit that to the Patent Office" even though it "was really the...best selling rotary cutter ever;" and (3) the Oka, Gudmundsen, and Cerny patents. A1808-09.

Counsel concluded by directly attempting to link the applicant's knowledge of prior art to its disclosures to the PTO, even though no record evidence existed that could prove this link:

[I]n 1988 when Oaks and Friesen applied for this on behalf of Deere, folks in the business of rotary cutters know about the 2615 obviously. Folks also knew about the M&W obviously....

. . .

And...you'll also see evidence that Deere does this invention disclosure internally before they go and get their patent, and in their invention disclosure, they have three brochures, the Woods brochure, the 2615, and the Rhino brochure. They only included one, the Woods brochure.

A1808. Duroc's counsel added: "And, in fact, you'll hear Mr. Grande, one of Deere's witnesses, who will tell you that he was aware of the M&W at the time of Friesen's invention, and he'll admit that because he signed it in a declaration dated November 21st of 2013." A1809. Duroc's counsel said this even though Mr. Grande did not participate in, and was not contemporaneously aware of, the prosecution of the '980 patent. A2072-73.

Duroc's counsel thus challenged the candor of Friesen and Oaks at a time when counsel knew they would not be at trial, that inequitable conduct had never been raised, and after Friesen and Oaks had both retired from Deere. A1184-91; A1290-91.

# 2. Deere's Motion to Preclude Further Allegations or Evidence of Inequitable Conduct.

Opposing counsel's allegation of a violation of the duty of candor was a complete surprise. Early the next morning, Deere filed a "Motion in Limine to Preclude Evidence or Argument of Alleged Inequitable Conduct." A1309-25.

Deere noted that Defendants' reference to the "duty of candor" is inextricably intertwined with inequitable conduct, highly prejudicial, and precedent counseled that the court should exclude such evidence and argument when inequitable conduct is not pled. A1299.

Before the trial resumed, the court questioned whether Defendants "plan to offer a motion to amend to include inequitable conduct?" A1830. Duroc's counsel conceded "[t]here's no record on it right now on which we would base any motion to amend any of the pleadings," but that the issue might arise in connection with Mr. Grande's testimony.<sup>4</sup> A1830. The court then commented:

If there is no inequitable conduct, I will have to get question by question to determine whether the requested answer to a question pertains to inequitable conduct or might be relevant to some other issue.

A1830 (emphasis added).

Turning to Deere, however, the court indicated:

I think your motion to change a case by eliminating any possibility of suggestion that your client is unethical or inequitable is too broad. I can't say this evidence is in and this evidence is not in; but go ahead and I'll let you finish.

At the pretrial conference, the court determined that Defendants had not had a fair opportunity to discover the content of Mr. Grande's expected trial testimony to the extent it related to the development of the '980 invention. The court thus directed Mr. Grande to serve a declaration summarizing his expected testimony. A1523-43. In that declaration, Mr. Grande stated that he was "aware of the M&W, Woods Batwing, and other single-deck rotary cutters at the time of Mr. Friesen's invention." A1292-93. Later, Mr. Grande realized he had been mistaken, and filed a corrected declaration stating that he first learned of the M&W in 2006. A1294.

A1830. At that invitation, Deere further explained:

The cases...make clear that a knowing failure to disclose or a negligent failure to disclose is irrelevant unless there's an inequitable conduct claim.

. . .

And the fact that the Patent Office did not consider prior art, of course, is pertinent; but whether Deere knew about that prior art and failed to disclose it is irrelevant unless there's an [inequitable conduct] claim....

A1830-31.

Defendants' counsel alleged that the basis of his argument was only "to show the jury what the [PTO] had and what they didn't have" and assured the court that "our proof will not be that Deere intended to deceive the [PTO]." A1831-32. Yet the court had already explained to the jury in its preliminary instructions that "[t]he cover page of the patent identifies...the filing date and a list of the references considered in the [PTO]." A1742. Had Defendants' intent been as stated, all that would have been necessary was to show that list to the jury.

The court denied Deere's motion "because I can't tell precisely what is in [Deere's] mind that [Defendants'] may present." In the court's view,

We haven't had evidence. All we have had is an opening statement, and maybe it can be spun two different ways....

• • •

I do think that Grande properly filed a declaration change when he was ordered to do it on penalty of not testifying. I will not prevent his testifying, but I'm going to leave defendants a whole lot of room for cross-examination. And if it develops that there may be evidence supporting the very serious charge of inequitable conduct, I'll certainly keep an open mind on whether to grant it.

A1836-37 (emphasis added).

With the door opened for Defendants to search for some evidence (not developed in the four preceding years) to support "the very serious charge of inequitable conduct," examination of Deere's witnesses began.

# 3. Defendants Continue to Implicate Inequitable Conduct In Questioning Deere Witnesses.

First, Deere called Ms. Harrison, a senior engineer who worked on the development and launch of Deere's dual-deck cutters. A1867. Ms. Harrison worked on (and signed) Mr. Friesen's Invention Disclosure, but played no role in the patent application or prosecution. A1886-87. In response to questioning on cross-examination concerning her knowledge of the market at the time of the invention, Ms. Harrison further explained that she was not familiar with any specific model of M&W's cutters. A1958. Duroc's counsel nonetheless made sure to point out through his questions that the Invention Disclosure "identified three competitors' models," and "was delivered to" Deere's attorney, Mr. Oaks, but that Ms. Harrison did not "know which prior art [Oaks] mentioned in the application...." A1959-60.

Great Plains' counsel kept the theme going, asking Ms. Harrison about fellow Deere employee Ken Oka's 1982 patent, A5195-98, for a deflector implement on cutters, which he pointed out "doesn't appear on the face of the '980 patent as prior art." A1988. Great Plains' counsel reiterated "it's true, isn't it, that Deere didn't tell the Patent Office about Mr. Oka's prior patent when it was pursuing the '980 patent?" A1990. Great Plains' counsel knew there was no evidence that anyone involved in the prosecution of the '980 patent knew about the Oka patent. Counsel for Deere objected but was overruled. A1990.

Deere played Mr. Friesen's July 22, 2010 deposition testimony to the jury. While Defendants questioned Mr. Friesen in the deposition regarding prior art, they failed to establish any record of inequitable conduct. A1830 (conceding lack of record).

Mr. Grande testified next about Mr. Friesen's background and invention. A2000-01; A2089. Mr. Grande stated that he first became aware of the M&W at the 2006 Louisville Farm Show, as he had averred in his corrected declaration. A2003. On cross-examination Duroc's counsel, despite the fact that Mr. Grande played no role in the patent prosecution, A2090-91; A2084, revisited the question of Deere's disclosure to the PTO:

Duroc's counsel returned to Oka in cross-examining Deere's expert, Dr. Parish. A4484.

- Q. In terms of, you understand from reviewing the documents in preparation for your testimony that Mr. Oaks only disclosed the Woods batwing to the Patent Office, correct?
- A. No. I am not clear on what Mr. Oaks sent to the Patent Office.
- Q. ... That's fair enough. If you're not clear, that's fine, because it is clear in the documents.

A2092 (emphasis added to counsel's gratuitous statement).

# 4. Deere's Evidence of Infringement and Defendants' Continued Emphasis on Deere's Candor.

To prove infringement, Deere offered the testimony of its technical expert Dr. Parish. A2407; A5029-33. Dr. Parish explained in detail how claims 1-3 and 6 of the '980 patent read on the accused Bush Hog 2710 and 2715 cutters. A2442-65. The evidence included Bush Hog technical drawings, promotional literature, and Bush Hog's admissions in response to Deere's Requests for Admission. A2448-49; A2456; A5078-88; A5076; A5077; A5083; A5075; A5265; A5182-85.

The Bush Hog Defendants put on no expert testimony in rebuttal, and no witness purported to explain why the accused models 2710 and 2715 did not infringe any of the asserted claims. In his cross-examination of Dr. Parish, Duroc's counsel continued to sprinkle in questions related to Deere's duty of candor. A2817 ("And the only piece of prior art that was provided to the Patent Office was the Woods piece of prior art?"); A2818 (same); A2819 ("And...none

Dr. Parish also testified that the accused Great Plains cutters infringe claims 1, 2, and 6 of the '980 patent, A2471, which Great Plains contested through the testimony of its technical expert Mr. Smith, A2531; A2614; A2619.

Case: 14-1403 Document: 45 Page: 41 Filed: 07/28/2014

of these particular brochures [for existing cutters] were provided to the Patent Office by Deere, correct?").

# 5. Defendants Continue to Invoke Deere's Conduct Before the PTO in Introducing Validity Evidence.

The Bush Hog Defendants opened their validity defense with the opinions of their expert Dr. Hall. A3565. Dr. Hall worked from this demonstrative, which he displayed repeatedly to the jury, and which emphasized the prior art "Provided by Deere" and "Not Provided by Deere":

sidered	
Not Provided by Deere, but Found by Examiner	Not Provided or Considered by Examiner
<b>,194,345 Pioch -</b> Mar. 1980	M&W Rotary cutter
<b>,724,660 Bowie</b> - Feb. 1988	<b>2,825,196 Gudmundsen</b> – Mar. 1958
<b>,887,420 Cerny, Jr</b> - Dec. 1989	<b>4,315,396 Oka</b> – Feb. 1982
, <b>005,344 McCracken</b> - Apr. 1991	<b>4,442,658 Cartner</b> – Apr. 1984
, <b>086,614 Pestka -</b> Feb. 1992	
, ;	194,345 Pioch - Mar. 1980 724,660 Bowie - Feb. 1988 887,420 Cerny, Jr - Dec. 1989 005,344 McCracken - Apr. 1991

A3571; A3574; A3576-77; A3581; A3583; A5248.

Dr. Hall maintained Defendants' theme that Deere withheld material from the PTO. *See*, *e.g.*, A3571-74; A3583 ("It's my opinion that the most significant prior art is what was...never furnished to the patent examiner."). Dr. Hall

volunteered that Oka "is a John Deere patent," invented by "Mr. Oka..., who was an associate of Mr. Friesen," that the PTO did not "have...when deciding whether or not to grant the '980 patent." A3577.

On cross-examination with regard to the Woods Batwing, Dr. Hall further volunteered that "it is my understanding that [Deere] did send this to the [PTO], but...didn't send two other documents that were supplied by Mr. Friesen, Mr. Oaks didn't do it," he "didn't send examples of cutter decks that were smooth on the bottom." A3673-74. Deere's counsel immediately moved to strike this extraneous reference to inequitable conduct. A3674. The court overruled the objection without discussion. A3674.

#### a) Defendants' anticipation case focused on the M&W.

Defendants asserted anticipation of the '980 patent's claims principally over the M&W cutter.<sup>7</sup>

Great Plains' technical expert Mr. Smith, added the opinion that the 1958 Gudmundsen lawnmower patent, A5171-81, also anticipates claims 1, 2, and 6 of the '980 patent. A4202-07.



A5136.

Dr. Hall testified that the wing decks of the M&W anticipated claims 1, 2 and 6 because the M&W is a dual-deck cutter. A3586-96; A3643-44; A3671. Dr. Hall acknowledged that M&W's technical drawings, A5154-56, referred to a "channel" separate from the "deck plate," A3661:



A5137 (labeling added).

Dr. Hall nevertheless contended that the channel was an "upper deck wall." A3590-91. This opinion capitalized on the district court's construction of the term "upper deck wall" as having "no size limitation." A0016. In Dr. Hall's estimation, the M&W had an upper deck wall because the channel is raised above the lower deck. A3590; A3597. Per Dr. Hall, virtually any structure on the top of a cutter deck would be an "upper deck wall" within the court's construction. A3668-71. This encompasses traditional cutters with beam-like structures on top of a single deck distinguished in the patent. A3671; A4397-98. An Alamo employee, Mr.

Jarvis, called as a lay expert by Alamo and Bush Hog, Inc., parroted the same opinion. A3487; A3502-05.

## b) Defendants' obviousness case focused on the M&W and lawnmowers.

Dr. Hall also offered two obviousness opinions based on the M&W, A3605-09 (combining Cartner and Oka with M&W); A3611-13 (claiming that changing M&W upper deck size was matter of design choice), but was conclusory in addressing the motivation to combine or modify the prior art to reach the '980 invention. While, in his view, the channel in the M&W "could" be made bigger (to become more of an "upper deck wall"), Dr. Hall did not testify that it would have been obvious to actually make that change or why one skilled in the art would do so. A3611-12.8

Great Plains' expert, Mr. Smith, asserted obviousness based on proposed prior art combinations that included lawnmower patents. A4208. Lawnmowers are much smaller and lighter machines than rotary cutters, with different design issues. A4437-38. Mr. Smith did not explain why one looking to design an easy-to-clean deck with torsional strength for a 2.5-ton commercial grade rotary cutter—the problems facing Mr. Friesen—would look to a push mower with plastic parts that weighs no more than 200 pounds. A4268-71.

Mr. Jarvis actually admitted to the contrary that enlarging the M&W's channel would make the cutter more expensive and heavier. A3518.

In contrast to Defendants' experts, the undisputed testimony of the actual rotary cutter designer witnesses was that they would not look to lawnmower technology. A4864-65; A2136-37; A4791-92; *see also* A4437-38. As Mr. Weaver—Great Plains' manager of product development—stated succinctly, "I don't think we would look at a lawn mower if we were designing a rotary cutter." A4864-65.

Nevertheless, Mr. Smith proposed combining Gudmundsen with Cerny, A4208-09, and that the combination allegedly would be motivated based on two additional patents—U.S. Patent No. 5,836,144 ("Hohnl"), A5217-29, and U.S. Patent No. 3,601,960 ("Buechler"), A5211-16. While Mr. Smith failed to address exactly how Hohnl and Buechler would motivate the combination of Gudmundsen and Cerny, Great Plains' counsel took the opportunity to elicit this gratuitous colloquy about Hohnl:

- Q. And who owns that patent?
- A. That is a Deere patent.
- Q. Did that patent get supplied to the Patent Office?
- A. That did not.

A4210.

#### c) Defendants' inadequate written description defense.

Defendants' written description defense relied on the brief, conclusory testimony of Dr. Hall that the claim limitation "lower, substantially planar, horizontal deck wall" lacked adequate support in the specification. A3623-25.

The crux of Dr. Hall's opinion was that the '980 specification discloses only one embodiment, in which the lower deck wall is horizontal and absolutely planar. Thus, in Dr. Hall's view, a claim to a "substantially planar" lower deck wall was outside the scope of what was described. *Id*.

Even here, Defendants could not resist emphasizing the role of Deere's patent attorney, Mr. Oaks, who submitted a claim amendment to add the qualifier "substantially planar" to distinguish the prior-art Bowie patent raised by the Examiner. A4885; A3626. The original claim limitation was drawn to "a lower, horizontal deck wall" which would have encompassed any level of planarity. A4909. After the Examiner made a rejection based on the Bowie patent, the claim was narrowed to require "a lower, substantially planar, horizontal deck wall." A4882. Mr. Friesen had testified that the lower deck wall of his invention was "[m]ostly" planar, A4785, which he equated with "substantially planar," A4784. Defendants provided no evidence that construction of a substantially planar, horizontal deck wall was unpredictable or otherwise outside the sphere of what Mr. Friesen believed he had invented.

### 6. Rule 50 Motions and Jury Instructions.

At the close of the evidence the parties made and renewed motions for judgment as a matter of law pursuant to Fed.R.Civ.P. 50. Deere also renewed its motion to preclude evidence and argument on alleged inequitable conduct, A4341-

42; A4354-55; A4456; A4546-47, and objected to the court's instructions, A4340-

55. In particular, Deere objected to the court's (1) refusal to give a curative instruction on the duty of candor; (2) failure to give an instruction on the need to establish a motivation to combine; and (3) continued construction of the claim term "upper deck wall" without any size requirement. A4340-55.

The court denied the parties' Rule 50 motions, and Deere's objections to the proposed jury instructions. A4456-57; A4547.

#### 7. Defendants Close the Trial with the Duty of Candor.

Defendants returned to the duty of candor in their closing arguments. In framing his closing remarks for the jury, Duroc's counsel argued:

[W]e've tried to give you enough information to empower you so that you can understand the facts and make a decision based on the facts, and that is actually in stark contrast to *the way the Patent Office was treated* in this case.

A4657 (emphasis added). Counsel continued, focusing the jury's attention on Deere's knowledge and candor before the PTO with respect to the M&W, A4660-61, and other prior-art references that anchored Defendants' validity defense:

The Patent Office...didn't get the Bush Hog prior art.... They didn't get the Rhino brochure.... [Y]ou have...Mr. Friesen working in the same department with Mr. Oka. He's working in the same department as Mr. Hohnl as well, ...and they don't provide the Patent Office this other relevant prior art....

A4660-61. Counsel then implored the jury: "You should think about Deere during the patent process with regard to candor...." A4681.

Deere objected again to counsel's "arguments about Deere's alleged lack of candor in the Patent Office," A4690-91, to which Duroc's counsel pled ignorance, A4691 (stating "I didn't say that"), and which the court overruled with little comment. A4691.

Alamo and Bush Hog, Inc.'s counsel then completed Defendants' story to the jury: "We have to be careful about issuance of patents" and "that can only happen if there's full disclosure and consideration of all relevant prior art," but that "didn't happen here." A4694.

### 8. Judgment on Appeal.

After the jury returned a verdict in favor of Defendants on infringement, anticipation (except for claim 3), obviousness, and written description, A0002-07, Deere moved for JMOL on each of the adverse findings and for a new trial pursuant to Fed.R.Civ.P. 59 based on Defendants injection of inequitable conduct into the case via the duty of candor, A1484-99. The court denied the motions. A0008-12.

#### SUMMARY OF THE ARGUMENT

1. The Court should order a new trial because there was no legitimate basis for Defendants' insistent and continuous intimations that Deere violated the duty of candor given that inequitable conduct was never part of the case and would have been improper to try to the jury. There is no evidentiary basis for believing Oaks

and Friesen were aware of, or intended to withhold, material prior art from the PTO. Defendants' line of attack was improper, baseless, permeated the entire trial, and its prejudice is evident in the clean sweep of jury verdicts against the great weight of evidence.

- 2. The Court should order judgment that the Bush Hog model 2710 and 2715 devices sold first by Duroc, and later Alamo's Bush Hog, Inc. subsidiary, infringe claims 1-3 and 6 of the '980 patent as a matter of law. After losing their planned bid to avoid liability based on the "spacers" placed between their dual-decks, the Bush Hog Defendants failed to offer affirmative evidence of non-infringement. The evidence of infringement, supplied by Deere's expert based on the testimony of the Bush Hog Defendants' engineers, technical documents, marketing materials and answers to requests for admissions, was so one-sided that no reasonable jury could have found non-infringement.
- 3. The Court should reverse the district court's construction of "upper deck wall," which clearly has a "size limitation" consistent with the written description of a structure with upper and lower decks that cooperate to form a box section reminiscent of an airplane wing. The district court's construction of an "upper deck wall" to include structures a fraction of the size of the lower deck wall is contrary to the intrinsic evidence and would encompass the prior art distinguished in the patent. Under the correct construction, and consistent with the testimony of

skilled rotary cutter designers (on both sides), the M&W cannot anticipate because it does not have an "upper deck wall." In addition, no reasonable jury could have found that the 1958 Gudmundsen push mower patent anticipates the claims because the cover plate is not inherently a structural member "joined to" the "right and left-hand end wall structures" as required by the claims.

- **4.** The Court should order judgment that Defendants failed to prove obviousness by clear and convincing evidence. There is no legally sufficient evidence supporting Defendants' experts' conclusory opinions on the motivation to combine prior art. Moreover, the court's instructions failed to properly advise the jury against the use of impermissible hindsight.
- 5. The Court should order judgment that Defendants failed to prove by clear and convincing evidence that the asserted claims violate the written-description requirement. The "substantially planar" limitation added to the claims during prosecution narrowed—not broadened—those claims, and the record indisputably establishes that the inventor was in possession of such an invention.

This Court should reverse the judgment, where appropriate grant judgment for Deere as a matter of law, and remand the balance for a new trial.

#### **ARGUMENT**

Rule 59 "confirms the trial court's historic power to grant a new trial based on its appraisal of the fairness of the trial and the reliability of the jury's verdict."

Gray v. Bicknell, 86 F.3d 1472, 1480 (8th Cir. 1996). This Court reviews a decision under Rule 59 "according to regional circuit law." *Union Carbide Chems*. & *Plastics Tech. Corp. v. Shell Oil Co.*, 308 F.3d 1167, 1185 (Fed. Cir. 2002). In the Eighth Circuit "the district court's denial of a new trial [is reviewed] for abuse of discretion," *Gilster v. Primebank*, 747 F.3d 1007, 1010 (8th Cir. 2014).

Rule 50 provides that a court may grant a JMOL "[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue . . . ." Fed.R.Civ.P. 50(a). This Court reviews a district court's decision under Rule 50 "de novo, reapplying the district court's JMOL standard anew." Union Carbide, 308 F.3d at 1185.

As set forth below, the district court's decisions do not satisfy the generally forgiving standards of Rules 59 and 50.

## I. The District Court Abused its Discretion in Denying Deere's Motion for a New Trial.

In the Eighth Circuit a new trial may be granted based on improper arguments made, or improper evidence elicited, by opposing counsel. *See*, *e.g.*, *Blair v. Wills*, 420 F.3d 823, 829-30 (8th Cir. 2005). Improper and prejudicial comments in a closing argument may alone justify a new trial. *See Gilster*, 747 F.3d at 1008. In addition, this Court may grant a new trial based on a legally erroneous jury instruction that affects the substantial rights of the parties. *See*, *e.g.*,

LNP Eng'g Plastics, Inc. v. Miller Waste Mills, Inc., 275 F.3d 1347, 1357 (Fed. Cir. 2001). Because Defendants' invocation of the duty of candor was both legally improper under this Court's precedents governing inequitable conduct, and prejudicial under the standards set by the Eighth Circuit, a new trial is required.

#### A. Defendants' Arguments Were Legally Improper.

In denying Deere's Rule 59 motion, the district court concluded, without citation, that "defendants were entitled to...emphasize why the Patent Office was unaware of" prior art raised at trial. A0010. This is wrong. Although, Defendants were entitled to point out the undisputed fact that certain prior art references were not considered by the Examiner, *e.g.*, *Z4 Technologies*, *Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1354-55 (Fed. Cir. 2007), the question as to "why" those references were not considered had absolutely no relevance to the trial.

What prior art was before the Examiner is evident from the face of the patent. A1742; A1202. This was the only evidence Defendants needed to make their point. Why, then, did Defendants constantly suggest that Mr. Friesen and Mr. Oaks deliberately withheld prior art from the PTO? The only answer is that Defendants intended to smear Deere and its patent, and prejudice the jury.

Defendants' unsupported allegations that Deere employees knew of certain prior art and yet did not provide it to the PTO plainly track inequitable conduct. See LaBourty Mfg., Inc. v. U.S. Int'l Trade Comm'n, 958 F.2d 1066, 1070 (Fed.

Case: 14-1403 Document: 45 Page: 54 Filed: 07/28/2014

Cir. 1992). Allegations relating to the duty of candor necessarily imply bad faith in prosecuting the patent and serve no purpose independent of inequitable conduct, to which the duty of candor is inextricably intertwined. *See*, *e.g.*, *Monsanto Co. v. Bayer Bioscience N.V.*, 514 F.3d 1229, 1233-34 (Fed. Cir. 2008). Inequitable conduct—and its twin concept the duty of candor—was neither a proper issue at trial nor appropriately before the jury.

"Inequitable conduct is an equitable defense to patent infringement that, if proved, bars enforcement of a patent." Therasense, 649 F.3d at 1285. This Court has cautioned against charges of inequitable conduct, which "cast a dark cloud over the patent's validity and paint the patentee as a bad actor." Id. at 1288. Far from promoting fair and efficient resolution of patent disputes, this cloud over the trial "discourages settlement and deflects attention from the merits of validity and infringement issues." Id. This Court has accordingly characterized inequitable conduct as "an absolute plague," id. at 1289 (quotation omitted), and made clear that arguments and evidence of inequitable conduct are appropriate only where the defendant properly pleads it with particularity pursuant to Fed.R.Civ.P. 9(b), see, e.g., Exergen Corp., 575 F.3d at 1326-27. In this case, Defendants did not plead inequitable conduct, with particularity under Rule 9(b), or otherwise. A1079-80; A1088-89; A1095-1100.

The district court effectively conceded its error in allowing Defendants to pursue their un-pled defense—noting that it denied Deere's request for a curative instruction regarding the duty of candor on the court's belief that "it was best not to call attention to a subject that was not here relevant...." A0011. The district court believed that its instruction to the jury that attorneys' arguments are not evidence alleviated Defendants' misconduct. A0011. This is wrong. Such instruction does not erase the impropriety or its prejudice. See Gilster, 747 F.3d at 1011, 1012 (reversing trial court's denial of new trial motion where attorney made improper argument in closing and trial court justified denial of new trial based on instruction that attorney argument is not evidence). The district court also mentioned the FJC video "Trial of a Patent Case" that was played to the jury before the trial commenced. A0010. But this general information resource could not have justified Defendants' trial misconduct here.

Defendants' contemporaneous justifications for their improper arguments were disingenuous. Defendants claimed relevance on the ground that their arguments showed what art was before the PTO. A1832-33. But those facts were not in dispute and easily shown by evidence that avoided casting aspersions on any Deere employee (regardless of whether that employee participated in the prosecution or knew about the prior art in question).

Defendants had no good faith basis for intimating or, in some cases, asserting that Oaks and Friesen were aware of prior art references that were not before the Examiner. *See supra* p. 29. Indeed, when deposed on the subject, Mr. Oaks testified that he was not familiar with the M&W brand of cutters. A5268. Had Defendants come to believe otherwise, they would have pled the defense at some point over the four-year history of this case. Defendants knew that Oaks and Friesen, who had retired from Deere, would not appear live at trial to defend themselves. Defendants also knew that the available witnesses (Harrison and Grande) did not participate in the patent prosecution. *See supra* pp. 28-30. The court's effective authorization for Defendants to engage in an inequitable conduct fishing expedition in front of the jury, *see supra* pp. 26-28, irreparably damaged the fairness of the trial.

#### B. The Prejudice to Deere Requires a New Trial.

In judging the prejudice arising from improper attorney argument, the Eighth Circuit has endorsed "three separate factors, long used to mark the boundaries between when a new trial is and is not required." *Gilster*, 747 F.3d at 1011 (quotation omitted). Defendants' arguments, and the district court's conduct of the trial, satisfies each factor.

### 1. Defendants' Improper Arguments Permeated the Entire Trial.

Contrary to the district court's view that the misconduct was "isolated," A0011, Defendants' improper appeals to inequitable conduct "permeated," the entire trial. Gilster, 747 F.3d at 1011. The misconduct began during opening statements, continued throughout the examinations of Deere's witnesses and the parties' experts (including Defendants' expert's unprompted and obviously prerehearsed observations), and was brought home to the jury in Defendants' closing arguments. See supra pp. 23-39. The entire trial record therefore illustrates Defendants' "deliberate strategic choice," Gilster, 747 F.3d at 1011, to recast the trial around an un-pled inequitable conduct defense and press the issue of the duty of candor. See also Magnivision, Inc. v. Bonneau Co., 115 F.3d 956, 959-60 (Fed. Cir. 1997) (remanding case for new trial where counsel focused invalidity defense on "assertions and innuendos of impropriety" during patent prosecution, which was not relevant to issues on trial).

Given that Deere's duty of candor was not a proper issue before the jury, e.g., Am. Calcar, 651 F.3d at 1333; PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315, 1318 (Fed. Cir. 2000), "the emphasis on this issue at the trial advanced it to unfair prejudice." Magnivision, 115 F.3d at 961. Moreover, as the Eighth Circuit has explained, the repeated improper introduction of irrelevant and prejudicial matters by counsel "generally entitles the aggrieved

party to a new trial if it conveys improper information to the jury and prejudices the opposing litigant." *Blair*, 420 F.3d at 829 (quotation omitted). Here, the improper information intended to be conveyed to the jury was clear: that Deere had improperly obtained the '980 patent. Both this Court and the Eighth Circuit agree that prejudicial "assertions and innuendos of impropriety [are] magnified by repetition." *Magnivision*, 115 F.3d at 961; *see also*, *e.g.*, *Burroughs v. Mackie Moving Sys. Corp.*, 690 F.3d 1047, 1051 (8th Cir. 2012); *Blair*, 420 F.3d at 829.

In these circumstances, "[c]ounsel's misconduct may be such that a district court cannot overcome its prejudicial effect by admonishing the jury or rebuking counsel; in such case a court should grant a new trial." *Id.* at 829-30. That is the case here.

The trial record on Defendants' closing arguments is particularly instructive.

Duroc's counsel argued:

[W]e've tried to give you enough information to empower you so that you can understand the facts and make a decision based on the facts, and that is actually in stark contrast to *the way the Patent Office was treated* in this case.

A4657 (emphasis added). Counsel continued, focusing the jury's attention on Deere's knowledge of various prior art references:

The Patent Office...didn't get the Bush Hog prior art.... They didn't get the Rhino brochure.... [Y]ou have...Mr. Friesen working in the same department with Mr. Oka. He's working in the same department as Mr. Hohnl as well, ...and they don't provide the Patent Office this other relevant prior art....

A4660-61 (emphases added); *see also* A4661 (arguing "they don't provide the Patent Office this other prior art" including the M&W (emphasis added)). Counsel then implored the jury: "You should think about Deere during the patent process with regard to candor...." A4681.

After the district court's blithe dismissal of Deere's objection, A4690-91, Alamo and Bush Hog, Inc.'s counsel capped the story: "We have to be careful about issuance of patents" and "that can only happen if there's full disclosure and consideration of all relevant prior art," but that "didn't happen here." A4694.

Taken together, such heavy emphasis on the alleged "treat[ment]" of the PTO broadly parallels "a prosecutor urging the jury at the end of a criminal case to be the conscience of the community" to remedy an injustice. *Gilster*, 747 F.3d at 1011 (quotations omitted). This is well-recognized as "an improper argument." *Id.* (quotations omitted).

### 2. The District Court Took No Specific Curative Action.

Deere repeatedly challenged Defendants' inappropriate, irrelevant, and prejudicial conduct by promptly filing a motion in limine, *see supra* pp. 26-28, objecting to questioning and argument throughout the trial, *see supra* pp. 29, 32, 39, and seeking a curative instruction on the duty of candor, *see supra* pp. 38, 45.

Counsel for Great Plains also joined the pursuit, stating "the things that happened before the Patent Office were a very one-sided conversation. It was Deere talking to the Patent Office. We weren't there. As often happens, when you have two parties that have an interest, that's when the facts come out." A4641.

Case: 14-1403 Document: 45 Page: 60 Filed: 07/28/2014

The district court declined each opportunity "to take any specific curative action." *Gilster*, 747 F.3d at 1012 (quotation omitted).

The court, in fact, did the opposite. It invited additional questions to see if there might be a basis for adding an inequitable conduct claim to the case despite the absence of any protections for Deere such as advance notice of the basis for Defendants' claim. *See supra* pp. 26-28. The most the court proved willing to do was to proceed "question by question," A1830, an approach clouded by the court's incorrect assumption that the reason prior art was not before the PTO is relevant. *Compare id. with* A0010. Notably, when it was nearly too late—after evidence, but before closing arguments—the court conceded that the duty of candor was "the pink elephant" in the room. A4355. Yet, even after that, the court permitted closing argument about Deere's candor to the PTO over Deere's objection. *See supra* p. 39.

Moreover, the court summarily overruled Deere's objections without explanation and without examining the relevance of the evidence or argument. *See supra* pp. 29, 32, 39. This practice placed Deere at a Morton's fork between serial overruled objections before the jury and proceeding with the trial and attempting to undo the damage later. In short, Deere was left to bear the district court's burdens:

The single most important task of a district judge presiding at a trial before a jury is to exercise that degree of control required by the facts and circumstances of each case to assure the litigants of a fair trial. This obligation does not arise only when objections are raised by one of the litigants or his counsel. Repeated improprieties by one counsel severely prejudice his adversary. Every trial lawyer knows that frequent objection is a potentially dangerous course of action the effect of which upon the jury cannot be estimated. Thus, *the burden falls on the federal district judge* to use his authority, whenever it becomes necessary, in such a way that the proceedings in the courtroom remain devoted to a reasoned and reasonable search for justice between the parties.

Koufakis v. Carvel, 425 F.2d 892, 900-01 (2d Cir. 1970) (emphasis added). See also Malandris v Merrill Lynch, Pierce Fenner & Smith Inc., 703 F.2d 1152, 1179 (10th Cir. 1981); Park West Galleries, Inc., v. Hochman, 692 F.3d 539, 548 (6th Cir. 2012).

Indeed, at the end of the trial, the court simply polled defense counsel on—and then overruled—Deere's objection to counsel's improper closing argument. A4690-91. Thus, the court effectively invited both Defendants to return to Deere's conduct before the PTO in the final closing argument, and the jury to weigh it. A4690-91. *Gilster*, 747 F.3d at 1012 ("The district court's decision to overrule the objection to counsel's argument and deem it appropriate was never undone and remained the most specific and timely guidance from the court to the jury....") (quoting *Whittenburg v. Werner Enters., Inc.*, 561 F.3d 1122, 1132 (10th Cir. 2009)).

The present appeal is therefore in stark contrast to situations in which denial of a new trial is typically upheld—where the trial court "sustain[ed] objections to the improper statements," *Burroughs*, 690 F.3d at 1052, or offered an adequate

cautionary instruction, see Harrison v. Purdy Bros. Trucking Co., 312 F.3d 346, 353 (8th Cir. 2002).

## 3. The Severity of the Verdict in Comparison to the Weight of the Evidence.

The clearest evidence that Defendants' succeeded in shifting the jury's focus to Deere's alleged conduct before the PTO is the verdict of (1) non-infringement by the Bush Hog cutters despite the Bush Hog Defendants' lack of any witness to deny infringement; (2) anticipation and obviousness based on prior art references allegedly withheld from the PTO and conclusory expert opinion; and (3) the failure to meet the written-description requirement undergirded by brief and conclusory testimony that denigrated Oaks' claim amendment. *See Gilster*, 747 F.3d at 1012-13. Such a verdict is explained only by Defendants' plainly successful campaign to "paint [Deere] as a bad actor." *Therasense*, 649 F.3d at 1288.

## II. Deere Is Entitled to JMOL that Duroc and Bush Hog, Inc. Infringe the Asserted Claims of the '980 Patent.

Deere presented evidence that the Bush Hog 2710 and 2715 cutters met each element of claims 1-3 and 6 of the '980 patent. That evidence included Bush Hog, LLC's engineering drawings, promotional materials, responses to requests for admission, the testimony of Mr. Moore—the Bush Hog engineer who designed the accused cutters—and Mr. Harrington—the Bush Hog product manager—and the testimony of Deere's technical expert, Dr. Parish.

#### As to Claim 1:

- 1) a rotary cutter deck, A2442-43; A5078-A5079;
- 2) a lower, substantially planar, horizontal deck wall, A2443-46; A5076; A5077; A2132-34; A5076; A5075; A4822.
- 3) an upper deck wall that has an elevated portion that slopes down to the front and down to the rear, A2446-49; A5075; A5265; A5079-81; A2132-34; A4792-93.
- 4) the upper deck in engagement with, and secured to, the lower deck wall, A2449-54; A2783; A2125; A2204-06; and
- 5) right-hand and left-hand end wall structures that are joined to the ends of the upper and lower deck walls to define a box structure that has torsional stiffness, A2454-57; A5076; A2442; A5078-79; A5083; A2116-18; A2126-27; A4815.

Claim 2: the right hand and left hand end wall structure, and apron members, A2457-58; A5182-85.

Claim 3: a framework including cross tubes; an upper deck wall welded to a front cross tube; and a lower deck wall welded to a rear cross tube, A2458-62; A2781-82.

Claim 6: an upwardly facing deck surface which is smooth and substantially obstruction free from front to back, whereby material may slide or easily be

washed off said deck surface and water will run off said deck surface, A2462-65; A5075; A5085-88.

The Bush Hog Defendants did not call a single witness to deny infringement. <sup>10</sup> Their expert did not address infringement. Defendants relied entirely on attorney argument, which even counsel admitted amounted to "technical defenses" that returned to their failed arguments about spacers. A4681-83. Because "the record before the jury contained no evidence to rebut the substantial evidence of infringement," the jury's verdict is not supported by substantial evidence and Deere is entitled to judgment as a matter of law on the question of Duroc and Bush Hog, Inc.'s infringement. *LNP Eng'g Plastics*, 275 F.3d at 1356-57.

# III. The District Court Erred in Denying Deere's Motion For JMOL of No Anticipation.

Defendants argued at trial that the asserted claims of the '980 patent are anticipated by the M&W and Gudmundsen. Neither contention had legally sufficient evidentiary basis.

### A. Deere is Entitled to JMOL that the M&W Does Not Anticipate.

Anticipation is "a factual determination that is reviewed for substantial evidence when decided by a jury." *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381

Mr. Moore denied only copying the Deere design but did not purport to analyze the claims. A2171; A2202.

F.3d 1142, 1149 (Fed. Cir. 2004). Whether a prior art reference includes every limitation of the patent depends upon the claim construction, *TI Gr. Auto Sys. (N. Am.), Inc. v. VDO N. Am., LLC*, 375 F.3d 1126, 1139 (Fed. Cir. 2004), a question of law, *Union Carbide*, 308 F.3d at 1176. The jury's conclusion that the '980 patent is anticipated by the M&W is based on an erroneous construction of the claim term "upper deck wall," and is not otherwise supported by substantial evidence.

### 1. The Verdict is Based on a Legally Erroneous Claim Construction.

To determine the meaning of a claim term, courts turn to "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313-14 (Fed. Cir. 2005). Claim 1 of the '980 patent discloses, among other things, "an upper deck wall." A0025. The district court erroneously construed "upper deck wall" to include "no size requirement," A0016, and provided this construction to the jury. A1386-87. As a matter of law, the term "upper deck wall" means that the upper deck wall is approximately the same size as the lower deck wall (much like the airplane wing design that inspired the '980 patent).

Deere opposed this construction from the outset, and maintained its objection in opposing the jury instruction, A0064; A1317-18.

The '980 patent consistently describes and illustrates the upper and lower deck walls as approximately the same size. '980 patent, Abstract, Fig. 3, 1:60-62, 2:2-7, 2:12-3:7 (A0020-25). The patent is entitled "Easy clean dual wall *deck* for rotary cutter" and every claim recites two such walls in the deck: "A lower, substantially planar, horizontal deck wall" and "an upper deck wall." Likewise, the abstract of the '980 patent explains, for example, that the deck "includes upper and lower deck walls configured together...to form a box structure." Id. (A0020) (emphasis added). This configuration is necessary to achieve the claimed box structure—an important object of the invention. Id., 1:54-62 (A0020). This Court recognized the basic symmetry in the upper and lower deck walls contemplated by the '980 patent in construing the separate term "into engagement with." Deere, 703 F.3d at 1354-55 (reviewing the terms used to "describe the relationship between the upper and lower deck walls," including that they "cooperate with each other").

The patent figures also show that the upper and lower deck walls are approximately the same size. As seen in Figure 3, for example—which depicts "the rotary cutter deck constructed in accordance with the present invention," '980 patent, 2:2-7 (A0024)—the upper deck wall is depicted as substantially the same size as the lower deck wall. While patent drawings "do not define the precise proportions of the elements and may not be relied on to show particular sizes *if the* 

F.3d 1343, 1351 (Fed. Cir. 2013) (quotation omitted) (emphasis added), the '980 specification is not "completely silent" here. Rather, consistent with the drawings, the specification provides substantial detail as to the relative size and locations of the upper and lower deck walls. *See*, *e.g.*, '980 patent, 2:12-3:7 (A0020).

Finally, the prosecution history of the '980 patent supports Deere's construction. During prosecution, the PTO considered the Woods Batwing, A4902-03—which includes a channel structure above (but much smaller than) the lower deck wall, A1883-86—under the "broadest reasonable interpretation consistent with the specification." *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quotation omitted). Even under this expansive standard, the Examiner did not find that the Woods structure disclosed an "upper deck wall."

This intrinsic evidence is dispositive. The term "upper deck wall" means that the upper deck is approximately the same size as the lower deck. By affirmatively stating that there is "no size requirement" the court effectively eliminated the phrase "deck wall" from the claim and permitted Defendants to argue that a "deck wall" could be met by a structure that looks nothing like a "deck" or a "wall." The court's construction, relayed to the jury, is therefore erroneous as a matter of law. Indeed, that construction is contrary to the teaching

of the '980 patent, and would result in the claims reading on the very prior art—cutters having problematic structures on the upper surface—that was described in the background section of the '980 specification. A0024. "Because the jury could only have compared the prior art to the erroneously...construed claim[]," the finding of anticipation cannot stand. *TI Gr.*, 375 F.3d at 1139-40.

# 2. The M&W is a Single-Deck Cutter That Lacks an "Upper Deck Wall."

Like other prior art cutters, the M&W used a single metal deck plate or wall with substantial structural components to make the deck strong. For example, the M&W had framing around the perimeter of the deck, and a structural "deck channel" to provide additional strength:



A5137 (labels added). The channel on the M&W cannot be an "upper deck wall" within the meaning of the patent.

The M&W channel represents precisely the structure that the '980 patent aimed to eliminate. *See supra* pp. 11-14; '980 patent, 1:21-35 (A0024).

Defendants' witnesses conceded that the technical drawings for the M&W specify a "DECK CHNL," A3502; A5154, and that the designer of the M&W would refer to the designated structure as a "deck channel." A3504-05. Defendants cannot point to any evidence that the "channel" of the M&W was ever referred to as, or considered, a "deck wall" or an "upper deck wall." Indeed, the M&W includes frames and

μΖ				
11	273105	I RT HINGE PLT WA	/G	
ťΟ	273(04	I WING INNER AT		
9	273:043	RT REAR FRM		
8	2731045	Z WAL YOKE LUG		
7	273(03)	I RT REAR CORNER FE	14	
6	2731624	I PT REAR CORUER BE	.,	
5	2731739	I DECK CHUL RT		
4	2731025	I SIDE FRAME		
3	2731292	I CORNER BRACE-RT		
2	2721044	IL FRONT FRAME		
1	2731736	I DECK PLATE		
	ATA SOM STATES TO HOLD MAD STA			
***		T WING WELD ASM		
~~	****** 1230 DIT			
	SCALE	THE SHAPES SHAPES SHAPESTON SHAPESTO	100	
30	TED	273022	9	
		XA50	90	

other structures both above and below the wall (including the channel), to provide the deck with adequate strength—the very characteristics the '980 patent sought to avoid. *See supra* pp. 11-16; A4410.

Moreover, the structural channels in the M&W do not perform any of the functions that are associated with the upper deck wall in the '980 patent. The channel provides torsional stiffness for only a small part of the deck, A4404, requiring substantial framing and additional structural components to make the deck strong. A4409. In addition, the channels do not make the decks easy to

clean, because the channels slope downwardly at nearly 90° to large portions of the deck wall. A4412-13. *See also* A3488; A3591-93. In contrast, the '980 patent discloses an upper deck that substantially covers the lower deck and gradually slopes downwardly to direct the cut material on the deck toward the end so it can fall or be brushed off easily.

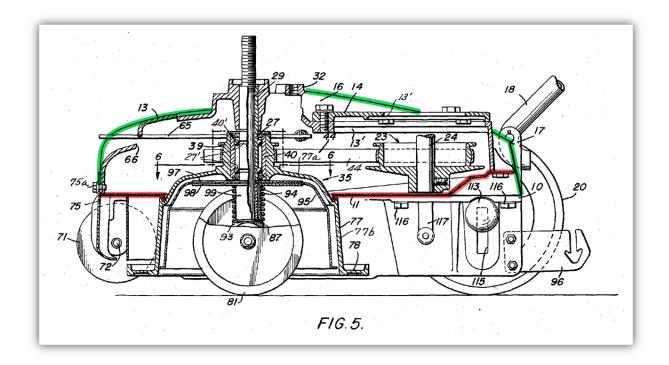
Defendants nevertheless argued that the M&W channel is an "upper deck wall" simply because it is a surface *above* a deck wall. Dr. Hall, for example, testified that a structure as narrow as a 2-inch-wide rib could be considered an "upper deck wall." A3668. Such an argument is both wildly inconsistent with the patent's use of the term "upper deck wall" and solely dependent on the district court's erroneous claim construction.

Because there is no substantial evidence that the M&W discloses an "upper deck wall" under the correct claim construction, the Court should reverse the judgment of anticipation and direct judgment for Deere on this issue.

### B. Gudmundsen Does Not Anticipate the Claims of the '980 Patent.

Gudmundsen is directed to a lawnmower design that avoids "engagement of the cutting rotor with the ground or obstacles." Gudmundsen, 1:20-21 (A5177). The mower has a "main frame 13" (shown in green) that "combines the functions of support and cover for the driving mechanism" and a "sheet metal cover plate

11" (shown in red) that provides a "complete closure for a part of the mechanism." *Id.*, 2:42-46 (A5177).



A5174 (coloring added). The cover plate is not a lower deck wall. Instead, it "is strictly a debris shield.... There's no showing in Gudmundsen that that cover plate is used in any way structurally." A4431. The cover plate must be easily removable so that service can be performed on the mower. A4432-33. Defendants presented no evidence to the contrary.

Moreover, there is no evidence that the cover plate is "joined to" the "right and left-hand end wall structures...to...define a box section having torsional stiffness" as required by claim 1. '980 patent, 4:51-52 (A0025). Defendants' experts did not identify anything in Gudmundsen showing that the cover plate is

joined to anything on the right- or left-hand sides of the main frame. At most, Great Plains' expert Mr. Smith testified conclusorily that "it's really *inherent* in this patent that those things are held together *some way...*." A42053 (emphasis added). But Bush Hog's expert, Dr. Hall, admitted that it was possible to attach the cover plate *only* at the front and at the back, and not to the end walls. A3680. Dr. Parish agreed with Dr. Hall that there are numerous ways the cover plate could be secured without joining it to the main frame on the right- and left-hand sides. A4434.

Because the record shows that it is possible that the cover plate in Gudmundsen is not necessarily joined at the right- and left-hand sides as required by claim 1, it cannot inherently anticipate. *Bettcher Indus., Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 639-40 (Fed. Cir. 2011) ("Inherency...may not be established by probabilities or possibilities"). The verdict of anticipation by Gudmundsen thus lacks legally sufficient evidentiary support.

#### IV. Deere is Entitled to JMOL or a New Trial on Obviousness.

Obviousness is a mixed question of law and fact. This Court leaves the jury's presumed underlying factual findings undisturbed if they are supported by the evidence, but examines the ultimate legal conclusion of obviousness *de novo* to see whether it is correct in light of the presumed factual findings. *See Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1356-57 (Fed. Cir. 2012).

Here, Deere is entitled to (1) JMOL because Defendants failed to present legally sufficient evidence that a skilled artisan would be motivated to combine or modify the prior art, or (2) a new trial on obviousness not only in light of the Defendants' inappropriate invocation of the duty of candor but also because the district court erred in instructing the jury on obviousness.

A party seeking to invalidate a patent as obvious must "demonstrate by clear and convincing evidence that a skilled artisan would have had reason to combine the teaching of the prior art references to achieve the claimed invention...." *In re Cyclobenzarine Hydrochloride Extended—Release Capsule Patent Litig.*, 676 F.3d 1063, 1068-69 (Fed. Cir. 2012) (quotation omitted). This "critical component of an obviousness analysis" cannot be established through "vague" expert testimony that fails to "articulate reasons why a person of ordinary skill...would combine the[] references." *InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014). Nor can an obviousness verdict stand based on "conclusory references to [the expert's] belief that one of ordinary skill in the art *could* combine these references, not that they *would* have been motivated to do so." *Id.* at 1352. Defendants' evidence does not pass muster.

Many of Mr. Smith's obviousness opinions relied on combining patents relating to lawnmowers—many of which (*e.g.*, Cerny, A4439, Klotski, A4441-42, and Gudmundsen, A5178, 4:25-30) include significant plastic or non-metal parts—

with much different devices. Yet the evidence at trial overwhelmingly established that a person with skill in the art would not look to such references. *See supra* p. 36. Mr. Smith's conclusory testimony to the contrary is not legally sufficient. *See*, *e.g.*, *Whitserve*, *LLC v. Computer Packages*, *Inc.*, 694 F.3d 10, 24 (Fed. Cir. 2012) ("[G]eneral and conclusory testimony is not enough to be even substantial evidence in support of a verdict [of invalidity]."). 13

Dr. Hall testified that the channel in the M&W *could* be made bigger to create an upper deck wall, but did not testify as to what the design changes would be or why it would have been obvious to actually make that change. A3611-12. Defendants' third expert, Mr. Jarvis, contradicted Dr. Hall when he admitted that enlarging the channel would make the cutter more expensive and heavier. A3518. Dr. Hall also failed to provide a motivation to combine M&W with Oka or Cartner. A3605-09.

Because the only evidence that Defendants can muster is conclusory expert testimony, the record lacks a legally sufficient evidentiary basis on which to

Although lawnmowers fall under the Court's construction of a "rotary cutter," if an alleged teaching reference "is directed to a different purpose" from the primary reference, "the inventor would accordingly have had less motivation or occasion to consider it." *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

Mr. Smith also did not provide any motivation to combine in his opinions based on: (1) Cerny and Klotski, (2) Cerny and Holley, or (3) Klotski and Holley. While Mr. Smith testified that motivation to combine the Gudmundsen and Cerny mowers could be found in Hohnl and Buechler, *see supra* p. 36, he failed to explain the basis for that opinion.

sustain the jury's verdict of obviousness. *See*, *e.g.*, *InTouch Techs.*, 751 F.3d at 1351-52; *Whitserve*, *LLC*, 694 F.3d at 24; *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness). Deere accordingly is entitled to a JMOL on obviousness. *See InTouch Techs.*, 751 F.3d at 1351-54.

If the Court does not direct judgment, it should grant a new trial not only for all of the reasons given with respect to the duty of candor, but also because the district court's jury instructions failed to include language necessary to avoid the impermissible use of hindsight, including an instruction on the relevance of evidence on a teaching, suggestion, or motivation to combine prior-art references. See KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 418-19 (2007); supra pp. 23, 37-See also Ondrisek v. Hoffman, 698 F.3d 1020, 1025 (8th Cir. 2012) 38. (explaining that instructions must "fairly and adequately represent the...applicable law"). Deere proposed, but the trial court rejected, instructions that would have properly advised the jury against using hindsight bias in its consideration of obviousness. See supra pp. 23, 37-38; A1268; A1311-12; A1327-28; A1398. Deere is accordingly entitled to a new trial on obviousness. See, e.g., Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1314-15 (Fed. Cir. 2010) (finding new trial required by failure to instruct jury on legal prerequisite to claim).

# V. Deere is Entitled to JMOL That the Claims of the '980 Patent Meet the Written Description Requirement.

The Bush Hog Defendants argued that the '980 patent violates the written-description requirement because the claimed "substantially planar" lower deck wall is not supported by the specification, which, they argued discloses only a perfectly planar lower deck. The defense was supported by the thinnest of testimony by Dr. Hall and counsel's argument. A3622-26; A4601; A4677-80. Worse, Defendants stressed during closing arguments that the "substantially planar" limitation was added by a "clever lawyer," Mr. Oaks, before the PTO in order to expand the scope of the claims. A4688.

"The test for sufficiency of a written description is whether the disclosure clearly allows persons of ordinary skill in the art to recognize that the inventor invented what is claimed." *Crown Packaging Tech., Inc. v. Ball Metal Bev. Container Corp.*, 635 F.3d 1373, 1380 (Fed. Cir. 2011). The purpose of the written description requirement is to curtail claims to inventions "that have not been invented, and thus cannot be described." *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2012). Although "[c]ompliance with the written description requirement is a question of fact," it is amenable to judgment "where no reasonable fact finder could return a verdict for the non-moving party." *Atl. Research Mktg. Sys. v. Troy*, 659 F.3d 1345, 1353 (Fed. Cir. 2011). Lack of an adequate written description is associated most often with broad functional claims

in unpredictable arts; a patent need not describe aspects of the invention that are well known or within the ability of an ordinarily skilled person to discern. *See*, *e.g.*, *Butamax (TM) Advanced Biofuels LLC v. Gevo, Inc.*, 746 F.3d 1302, 1314-15 (Fed. Cir. 2014).

The '980 invention as originally described in the patent application contains an exemplar of a perfectly planar lower deck wall but does not assign any criticality to perfect planarity. Indeed, a substantially planar lower deck wall accomplishes the objectives of the invention just as a perfectly planar wall would, A4436, by leaving the "underside [of the rotary cutter] free of structural members, except for the usual material flow baffles, allowing for smooth material flow," '980 patent, 1:48-53 (A0024). Mr. Friesen testified by deposition that his invention included a lower deck that is "[m]ostly" planar, A4785, which he equated with "substantially planar," A4784, as would any ordinarily skilled artisan. A4434-36.

Defendants adduced no evidence to "compel the conclusion that the written description is so narrowly tailored as to preclude" Deere from claiming embodiments where the lower deck wall is not perfectly planar. *Crown Packaging*, 635 F.3d at 1381 (citing *Lampi Corp. v. Am. Power Prods.*, 228 F.3d 1365, 1378 (Fed. Cir. 2000) (patent drawings "merely a 'practical example' of the invention" and did not limit the patent to identical embodiments)). Moreover, the

Case: 14-1403 Document: 45 Page: 78 Filed: 07/28/2014

claims as originally filed contain no planarity limitation. A4873-75; A4904-10. *See Crown Packaging*, 635 F.3d at 1380 ("Original claims are part of the specification and in many cases will satisfy the written description requirement.").

Furthermore, the addition of the limitation "substantially planar" in response to the objection over Bowie narrowed the claim; it did not broaden it as Defendants argued to the jury. A4679; *Seachange Int'l, Inc. v. C-COR Inc.*, 413 F.3d 1361, 1372-73 (Fed. Cir. 2005); *Deere*, 703 F.3d at 1359 (explaining that Bowie sets a limit on the planarity described in the '980 patent).

Given the complete failure of proof on this issue, the Court should grant judgment as a matter of law that the '980 patent satisfies the written description requirement.

#### **CONCLUSION**

For the forgoing reasons, this Court should reverse the judgment against Deere and remand the case for a new trial, and direct entry of judgment in Deere's favor with regard to Duroc's and Bush Hog, Inc.'s infringement, and the '980 patent's validity.

/s/ Roderick R. McKelvie
RODERICK R. MCKELVIE
STEPHEN P. ANTHONY
JAY I. ALEXANDER
R. JASON FOWLER
COVINGTON & BURLING, LLP
1201 Pennsylvania Ave., NW
Washington, D.C. 20004

Case: 14-1403 Document: 45 Page: 79 Filed: 07/28/2014

202.662.6000 phone 202.662.6291 facsimile

Counsel for Appellant Deere & Company

Dated: July 28, 2014

# **ADDENDUM**

# TABLE OF CONTENTS

	Page(s)
Judgment [Dkt. 526]	A0001
Special Verdicts [Dkt. 521]	A0002-A0007
Order Denying Motions for New Trial and for Judgment NOV [Dkt. 576]	A0008-A0012
Order on No Willful Infringement and Construction of "Upper Deck Wall" [Dkt. 377]	A0013-A0016
Rulings on Motions in Limine [Dkt. 449]	A0017-A0018
Ruling Denying Deere's Motion in Limine to Preclude Evidence or Argument of Alleged Inequitable Conduct [Dkt. 471]	A0019
U.S. Patent No. 6 052 980	A0020-A0026

Case 3:09-cv-00095-CRW-TJS Document 526 Filed 12/19/13 Page 1 of 1

#### IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF IOWA DAVENPORT DIVISION

DEERE & COMPANY,	)	
Plaintiff,	) ) )	Civil Action No. 3:09-cv-00095 Judge Charles R. Wolle
v.	)	Magistrate Judge Thomas J. Shields
	)	
DUROC, LLC; ALAMO GROUP INC.;	)	
BUSH HOG, INC.; and GREAT PLAINS	)	
MANUFACTURING INCORPORATED,	)	
	)	
Defendants.	)	
,	_ )	

#### **JUDGMENT**

JURY VERDICT. This action came before the Court for trial by jury. The issues have been tried and the jury has rendered its verdict.

#### IT IS ORDERED AND ADJUDGED:

That in light of the jury's verdict the Court hereby enters judgment for Defendants and against Plaintiff on all claims and enters judgment in favor of Defendants on their counterclaims for non-infringement and invalidity, with costs to Defendants. and costs charged to Deere and Company.

Date: December 19, 2013

/s/ R. Johnson

Case: 14-1403 Document: 45 Page: 82 Filed: 07/28/2014

Case 3:09-cv-00095-CRW-TJS Document 521 Filed 12/19/13 Page 1 of 6

#### IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF IOWA DAVENPORT DIVISION

DEERE & COMPANY,

Case No. 3-09-cv-95-CRW-CFB

Plaintiff,

SPECIAL VERDICTS

v.

DUROC LLC, ALAMO GROUP, INC., BUSH HOG, INC., and GREAT PLAINS MANUFACTURING, INC.,

Defendants.

We, the jury unanimously return the following special verdicts by answering the questions submitted to us in accordance with the explanations provided.

#### I. INFRINGEMENT

In answering the following question on infringement, under the question for each group of products check one box for each claim of the '980 patent deciding whether Duroc LLC (Duroc), Alamo Group Inc. (Alamo), Bush Hog Inc. (Bush Hog), or Great Plains Manufacturing Incorporated (Great Plains) has infringed the claim literally, has infringed that claim under the doctrine of equivalents, or has not infringed the claim.

Check only one box on each question for each listed claim. If you find that a defendant or group of defendants has not infringed independent claim 1, either literally or under the doctrine of equivalents, then you do not need to consider whether that defendant has infringed dependent claims 2, 3, and 6. Consider infringement under the doctrine of equivalents for a claim only if you find that there is no literal infringement of that claim.

Case 3:09-cv-00095-CRW-TJS Document 521 Filed 12/19/13 Page 2 of 6

QUESTION NO. 1 (a): Has Deere & Company (Deere) proven, by a preponderance of the evidence, that Duroc has literally infringed the following claims of the '980 patent by making, using, offering for sale, or selling the Bush Hog Rotary Cutters? "YES" is an answer for Deere. "NO" is an answer for Duroc.

	YES – Literal Infringement (for Deere)	NO—Literal Infringement (for Duroc)
Claim 1		X
Claim 2		X
Claim 3		×
Claim 6		×

QUESTION NO. 1 (b): Has Deere & Company (Deere) proven, by a preponderance of the evidence, that Alamo and Bush Hog have literally infringed the following claims of the '980 patent by making, using, offering for sale, or selling the Bush Hog Rotary Cutters? "YES" is an answer for Deere. "NO" is an answer for Alamo and Bush Hog.

	YES – Literal Infringement (for Deere)	NO—Literal Infringement (for Alamo and Bush Hog)
Claim 1		×
Claim 2		X
Claim 3		X
Claim 6		X

QUESTION NO. 1 (c) (answer only for any claim for which you answered "NO" above): Has Deere proven, by a preponderance of the evidence, that Duroc has infringed the following claims of the '980 patent under the doctrine of equivalents by making, using, offering for sale, or selling the Bush Hog Rotary Cutters? "YES" is an answer for Deere. "NO" is an answer for Duroc.

Case 3:09-cv-00095-CRW-TJS Document 521 Filed 12/19/13 Page 3 of 6

	YES – Infringement under the Doctrine of Equivalents (for Deere)	NO (for Duroc)
Claim 1		X
Claim 2		×
Claim 3	·	×
Claim 6		×

QUESTION NO. 1 (d) (answer only for any claim for which you answered "NO" above): Has Deere proven, by a preponderance of the evidence, that Alamo and Bush Hog have infringed the following claims of the '980 patent under the doctrine of equivalents by making, using, offering for sale, or selling the Bush Hog Rotary Cutters? "YES" is an answer for Deere. "NO" is an answer for Alamo and Bush Hog.

	YES – Infringement under the Doctrine of Equivalents (for Deere)	NO (for Alamo and Bush Hog)
Claim 1		Х
Claim 2		Ý
Claim 3		×
Claim 6		×

QUESTION NO. 1 (e): Has Deere proven, by a preponderance of the evidence, that Great Plains has literally infringed the following claims of the '980 patent by making, using, offering for sale, or selling the Great Plains Rotary Cutters? "YES" is an answer for Deere.

"NO" is an answer for Great Plains.

	YES – Literal Infringement (for Deere)	NO—Literal Infringement (for Great Plains)
Claim 1		X

Case 3:09-cv-00095-CRW-TJS Document 521 Filed 12/19/13 Page 4 of 6

Claim 2	X	
Claim 6	Y	

QUESTION NO. 1 (f): Has Deere proven, by a preponderance of the evidence, that Great Plains has infringed the following claims of the '980 patent under the doctrine of equivalents by making, using, offering for sale, or selling the Great Plains Rotary Cutters? "YES" is an answer for Deere. "NO" is an answer for Great Plains.

	YES – Infringement under the Doctrine of Equivalents (for Deere)	NO—Infringement under the Doctrine of Equivalents (for Great Plains)
Claim 1		X
Claim 2		X
Claim 6		X

#### II. INVALIDITY

QUESTION NO. 2 (a) (anticipation): Have defendants proven, by clear and convincing evidence, that a single prior art reference disclosed all of the elements of the invention described in each of the asserted claims of the '980 patent? "YES" is an answer for defendants. "NO" is an answer for Deere.

	YES (for defendants)	NO (for Deere)
Claim 1	X	
Claim 2	X	
Claim 3		×
Claim 6	X	

QUESTION NO. 2 (b) (obviousness): Have defendants proven, by clear and convincing evidence, that each of the asserted claims of the '980 patent would have been obvious to a person

Case 3:09-cv-00095-CRW-TJS Document 521 Filed 12/19/13 Page 5 of 6

of ordinary skill in the art on July 17, 1998? "YES" is an answer for defendants. "NO" is an answer for Deere.

	YES (for defendants)	NO (for Deere)
Claim 1	X	
Claim 2	×	
Claim 3	X	
Claim 6	×	

QUESTION NO. 2(c) (written description): Have Defendants proven, by clear and convincing evidence, that it is highly probable that the '980 patent does not contain a written description of the invention covered?

	YES (for defendants)	NO (for Deere)
Claim 1	×	·

#### III.DAMAGES

If you have found that defendants have not infringed any of the asserted claims or that all of the asserted claims are invalid, you should not answer any further questions. If you have found that defendants have infringed any of the asserted claims and that the infringed claims are valid, you should answer the following questions.

#### LOST PROFITS

QUESTION NO. 3: What lost profits, if any, did Deere prove, by a preponderance of the evidence, that it suffered as a result of defendants' infringement of the '980 patent?

Case 3:09-cv-00095-CRW-TJS Document 521 Filed 12/19/13 Page 6 of 6

## REASONABLE ROYALTY

QUESTION NO. 4: What total reasonable royalty amount do you find that Deere has
proven, by a preponderance of the evidence, that Deere was entitled to receive from Duroc LLC
for U.S. sales of the Bush Hog Rotary Cutters that infringe the '980 patent?
Total Reasonable Royalty Amount from Duroc LLC \$
If that amount was based on a running royalty, as opposed to a lump sum, what was the rate of
that running royalty?
QUESTION NO. 5: What total reasonable royalty amount do you find that Deere has
proven, by a preponderance of the evidence, that Deere was entitled to receive from Alamo
Group, Inc. and Bush Hog, Inc. for U.S. sales of the Bush Hog Rotary Cutters that infringe the
'980 patent?
Total Reasonable Royalty Amount from Alamo Group, Inc. and Bush Hog, Inc.
\$
If that amount was based on a running royalty, as opposed to a lump sum, what was the rate of
that running royalty?
QUESTION NO. 6: What total reasonable royalty amount do you find that Deere has
proven, by a preponderance of the evidence, that Deere was entitled to receive from Great Plains
Manufacturing, Inc. for U.S. sales of the Bush Hog Rotary Cutters that infringe the '980 patent?
Total Reasonable Royalty Amount from Great Plains Manufacturing
\$
If that amount was based on a running royalty, as opposed to a lump sum, what was the rate of
that running royalty?
Dated: December 19th, 2013 Foreperson

Case: 14-1403 Document: 45 Page: 88 Filed: 07/28/2014

### IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF IOWA DAVENPORT DIVISION

DEERE & COMPANY,

Plaintiff,

No. 3-09-cv-95-CRW-CFB

VS.

Order Denying Motions for New Trial and for Judgment NOV

DUROC LLC, formerly known as BUSH HOG, LLC, ALAMO GROUP, INC., BUSH HOG, INC., and GREAT PLAINS MANUFACTURING, INC.,

Defendants.

From December 2, 2013 through December 19, 2013, this court presided at a jury trial in this lawsuit concerning the damages claims of plaintiff Deere & Company (Deere) asserting that defendants infringed U.S. Patent No. 6,052,980, the "980 patent." Jury trial was held at the U.S. Courthouse in Davenport, Iowa, just across the Mississippi River from Deere's headquarters in Moline, Illinois, a venue Deere chose and defendants had protested in vain. On December 19, the jury returned special verdicts against Deere on its claims of patent infringement, and in favor of defendants who contended that Deere's patents were invalid for several reasons and not infringed.

Now before the court for ruling are Deere's alternative motions for judgment as a matter of law and for new trial, filed pursuant to Federal Rule of Civil Procedure 59 (Docket #548). Deere contends it was entitled to judgment as a matter of law on several grounds, none of which are correct.

A new trial is warranted to avoid a miscarriage of justice, see Belk v. City of Eldon, 228 F3d 972, 878 (8th Cir. 2000), or when errors in the instructions as a whole clearly mislead the

Case: 14-1403 Document: 45 Page: 89 Filed: 07/28/2014

jury. See McCoy v. Augusta Fiberglass Coatings, Inc., 593 F.3d 737, 744 (8th Cir. 2010). Neither situation occurred here. Moreover, Deere has entirely failed to demonstrate from this record that it was entitled to judgment as a matter of law on any of the many issues the court submitted to the jury. The court denies Deere's post-verdict motions.

Previous Court of Appeals decision. In presiding at the jury trial, the court was benefitted by following guidance given in the opinion of the United States Court of Appeals for the Federal Circuit, Deere & Co. v. Bush Hog, et al., 703 F.3d 1349 (Fed. Cir. 2012). The published decision of the Court of Appeals corrected this court's erroneous grant of summary judgment of non-infringement and one of the claim constructions appealed by Deere. This court during the jury trial closely followed the clarified claim constructions and the law governing the submitted issues of infringement, both under the doctrine of equivalence and Deere's literal infringement theories. During the lengthy jury trial this court attempted strictly to follow the teachings of the Court of Appeals decision. The detailed jury charge and special verdict questions closely tracked the Federal Circuit Court of Appeals decision. Moreover, the jury gave unanimous consistent answers to the many special verdict questions and closely followed the court's detailed jury charge on all issues of invalidity and infringement.

Motion for Judgment NOV. In its motion for judgment NOV, Deere asserts (Docket #558) that many issues decided by the jury in favor of defendants should have been decided for Deere as a matter of law. Deere is incorrect on all of those arguments. Substantial evidence supported the defendants' positions and the jury verdicts on all of the issues. Deere's arguments are based solely on its own witnesses and fail to acknowledge the strong evidence contrary to its contentions.

Defendants vigorously and fairly responded in great detail and on many pages to the Deere post-verdict motions. (Docket # 561 and 564). It is apparent from the jury's special verdicts and the court's observations during trial that the jury found credible the defendants' expert witnesses and not Deere's expert witnesses. The court now finds that the record and applicable

Case: 14-1403 Document: 45 Page: 90 Filed: 07/28/2014

Case 3:09-cv-00095-CRW-TJS Document 576 Filed 03/05/14 Page 3 of 5

law support fully each and all of the factual and legal contentions defendants have presented in their consolidated Response to the Deere post-verdict motions and in their objections to Deere's post-verdict submissions.

Motion for new trial. Before trial began, the court denied *in limine* Deere's motion to preclude evidence or argument concerning alleged inequitable conduct, stating that it would take up Deere's concern about inequitable conduct "question by question." Deere concedes that it then made a strategic decision not to raise in front of the jury question by question objections to testimony concerning inequitable conduct. In so doing, Deere failed to preserve its present challenges in post-verdict motions to evidence concerning its candor before the Patent Office. To the extent that Deere did preserve error, it has not identified any instance in which defense counsel suggested that Deere fraudulently withheld any reference to prior art in order to deceive the Patent Office.

The introductory patent video shown without objection to the jury did briefly mention the duty of candor. Likewise, defendants were entitled to highlight facts from the prosecution history to provide the jurors with a general understanding of the patent process and to emphasize why the Patent Office was unaware of the evidence on which the jury deemed the patent anticipated. Deere's primary post-verdict argument is that defendants should not have mentioned any violation of the duty of candor, even though defendants did not plead inequitable conduct as a defense. Deere also contends the court erred when it denied Deere's motion in limine to preclude evidence or argument concerning alleged inequitable conduct and again when the court denied Deere's request for a curative instruction on the duty of candor. Deere argues that at times during trial- - -in opening and closing statements as well as during part of the questioning of witnesses

<sup>&</sup>lt;sup>1</sup>The court did, however, consistently hold that defendants had neither pleaded nor proved inequitable conduct. That issue was never submitted to the jury. <u>Hoffman-LaRoche, Inc. v. Promega Corp.</u>, 323 F.3d 1354 (Fed. Cir.2003), <u>see</u> Anatomy of a Patent Case, Federal Judicial Center (2<sup>nd</sup> ed. 2012), pp. 158-61.

Filed: 07/28/2014 Case: 14-1403 Document: 45 Page: 91

Case 3:09-cv-00095-CRW-TJS Document 576 Filed 03/05/14 Page 4 of 5

Parish, Hall, and Smith - - - defense counsel made some mention of Deere's disclosures to the Patent Office.

The isolated bits of evidence and attorney argument Deere now faults constitute a very small part of this very large record made during more than two weeks of trial. And the court did explain to the jury that lawyer comment during opening and closing argument did not constitute evidence.

Viewing as a whole the massive amount of evidence presented to the jury by all parties, the court concludes that no evidence or arguments of counsel presented by defendants rendered unjust the jury's verdict. Nor were Deere's rights infringed in any respect.

Moreover, the court had broad discretion in ruling on instructions proffered to it. Deere proposed New Instruction No. 13.1, an instruction that first defined the duty of candor, then stated that it was not an issue in this case. The court considered the proposed instruction and determined that it was best not to call attention to a subject that was not here relevant nor submitted to the jury. The court stands by its decision not to include Deere's proposed instruction in its final instructions. See McCoy, 593 F.3d at 744 (court not required to instruct on issues that do not find support in the record). Instruction No. 12, together with all other instructions in the jury charge, adequately and completely stated the law applicable to this case.

The court denies Deere's motions for a new trial and for judgment NOV.

IT IS SO ORDERED.

Dated this 5th day of March, 2014.

Case: 14-1403 Document: 45 Page: 93 Filed: 07/28/2014

#### IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF IOWA DAVENPORT DIVISION

DEERE & COMPANY,

Plaintiff,

No. 3-09-cv-95-CRW-CFB

VS.

ORDER

DUROC LLC; ALAMO GROUP, INC.; BUSH HOG, INC.; GREAT PLAINS MANUFACTURING, INC.,

Defendants.

On September 17, 2013, the court held a telephone conference to receive arguments of counsel on defendants' motions for partial summary judgment concerning willful infringement and defendants' request for construction of the '980 patent claim phrase "upper deck wall."

The court grants partial summary judgment for all defendants on the "willful infringement" issue, and the court construes the claim term "upper deck wall" to have its plain and ordinary meaning, with none of the size requirements proposed by Deere & Company.

- I. Summary judgment principles are set forth in this court's previous order.

  (Docket # 152). In deciding whether partial summary judgment must be entered in favor of defendants dismissing Deere's claims of willful infringement, the court applies several legal principles well summarized in defendants' briefs and in the case of <u>In re Seagate Tech, LLC</u>, 497 F.3d 1360, 1371 (Fed. Cir. 2007).
- II. For the several reasons here listed, Deere would not be able to convince a reasonable jury---by the required clear and convincing evidence---that any of the defendants'

actions described in this record were "objectively reckless." This court's ruling granting summary judgment of non-infringement (Docket # 152), though reversed by the Court of Appeals, demonstrates that the defenses defendants have raised are not and never were objectively unreasonable. In all of the cases defendants cite, the courts have held that willful infringement may not be submitted to juries when the alleged infringers had reasonable grounds for believing they had valid defenses. See, e.g., Advanced Fiber Tech. Trust v. J&L Fibers Serv., Inc., 674 F.3d 1365 (Fed. Cir. 2012); Solvay, S.A. v. Honeywell Specialty Materials, LLC., 827 F. Supp.2d 358 (D. Del. 2011); Honeywell Int'l Inc. v. Univeral Avionics Sys. Corp., 585 F. Supp.2d 636 (D. Del. 2008); Franklin Elec. Co., Inc. v. Dover Corp., No. 05-C-598-S, 2007 WL 5067678 (W.D. Wis. Nov. 15, 2007).

The cases Deere cites in support of its willfulness claims are readily distinguishable for reasons well stated in defendants' briefs. See Toshiba Corp. v. Imation Corp., No. 09-cv-305-slc, 2013 WL 1248633 (W.D. Wis. Mar. 26, 2013)( dictum that initial summary judgment ruling precluded willfulness); AIA Engineering Ltd. v. Magotteaux Int'l S/A, No. 3:09-cv-00255, 2012 WL 4442665 (M.D. Tenn. Sept. 21, 2012) (no prior non-infringement summary judgment ruling); Powell v. Home Depot U.S.A., Inc., 663 F.3d 1221 (Fed. Cir. 2011)( no prior summary judgment ruling); Eaton Corp. v. ZF Meritor LLC, No. 03-74844, 2008 WL 920128 (E.D. Mich. Apr. 3, 2008)( no prior summary judgment, and incorrect claim construction).

Defendants also have a substantial anticipation defense, based on the M & W and Woods prior art references that they contend anticipated the '980 patent. Even one of Deere's own expert witnesses seems to support defendants' motion for summary judgment on willful infringement. The deposition testimony of Dr. Richard L. Parish, Deere's invalidity expert,

supports part of defendants' prior art defense. Parish testified that individual elements of claim 1 "were all known in the [prior] art."

Several practical reasons also counsel against submission of Deere's willfulness issue to the jury. Jurors would likely have trouble comparing and distinguishing between the conduct of each of the four defendants on whether each was "objectively reckless." Moreover, the jury trial will involve multiple challenging factual issues, and the jury charge will be lengthy and complicated without requiring the jury to understand and sort through willfulness concepts.

Defendants are all entitled to summary judgment dismissing Deere's claim of willful infringement.

III. Because the parties need construction of the claim term "upper deck wall" to prepare for the upcoming jury trial, the court has received oral arguments of counsel and carefully considered their briefs and the entire summary judgment record on this <u>Markman</u> issue. Claim construction is a matter of law for the court and must not be left to the jury to resolve. <u>O2</u> Micro Intern. Ltd. v. Beyond Innovation Tech. Co. Ltd., 521 F.3d 1351, 1362 (Fed. Cir. 2008).

The court concludes that the plain meaning of "upper deck wall" in this case is that there is no size requirement, as argued by defendants. The court therefore rejects Deere's proposed construction that "upper deck wall" is a deck wall approximately the same size as the lower deck wall of the mowing device.

The court begins with the claim language itself. See Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005). The specific descriptive words of "the upper deck wall" claim are quite detailed but that wording neither explicitly nor by implication states the wall must be about the same size as the lower deck wall. Deere knew how to describe a size limit, as it did

Case: 14-1403 Document: 45 Page: 96 Filed: 07/28/2014

Case 3:09-cv-00095-CRW-TJS Document 377 Filed 10/02/13 Page 4 of 4

with a lower gear box opening that was "larger in diameter" than upper gear box openings in its '980 patent. See Acumed LLC v. Stryker Corp., 483 F.3d 807 (Fed. Cir. 2007).

Deere errs in proposing that "upper deck wall" be construed by reference to prior art; this violates what the Federal Circuit Court of Appeals wrote in SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1340 (Fed. Cir. 2005). Deere also errs in suggesting that this claim term should be interpreted based on the sole embodiment in the specification. This approach was already rejected in this case. See Deere & Co. v. Bush Hog, Inc., 703 F.3d 1349, 1358 (Fed. Cir. 2012). Nothing in the words of this unambiguous, easy to understand claim imports a size limitation.

So the court finds "upper deck wall" means only what is the plain and ordinary meaning of the words of the claim, with no size requirements or limitations.

IT IS SO ORDERED.

Dated this 2<sup>nd</sup> day of October, 2013.

CHARLES R. WOLLE, JUDG

U.S. DISTRICT COURT

Case: 14-1403 Document: 45 Page: 97 Filed: 07/28/2014

#### IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF IOWA DAVENPORT DIVISION

DEERE & COMPANY,

Plaintiff.

No. 3-09-cy-95-CRW-CFB

VS.

RULINGS ON MOTIONS IN LIMINE

DUROC LLC; ALAMO GROUP,

INC.; BUSH HOG, INC.;

GREAT PLAINS MANUFACTURING, INC.,

Defendants.

On November 14, 2013, the court received oral arguments at the U.S. Courthouse in Davenport on the parties' many resisted motions <u>in limine</u>. The court now denies all motions <u>in limine</u>, with the exceptions explained here. Most of the challenged evidence is probably admissible and presents no likelihood of unfair prejudice to one or more parties. The parties may again object to the challenged evidence during the jury trial; and outside the presence of the jury any party may offer again evidence precluded by these rulings.

A party objecting to the challenged evidence during the trial need not orally assert its reasons for the objections. Reasons are adequately set forth in the motions in limine.

- 1. The court grants the motion to permit jury inspection of the M & W rotary cutter and all other relevant rotary cutters; defendants' counsel will arrange for them to be inspected by the jury at a place close to the U.S. Courthouse.
- 2. The court sustains the motions concerning the following matters. They may not be mentioned in the presence of the jury without notice and a ruling allowing these matters in evidence.

Case 3:09-cv-00095-CRW-TJS Document 449 Filed 11/15/13 Page 2 of 2

A. No witness or attorney may speculate about whether the United States Patent Office reviewed the Wood 3240 brochure.

B. No witness or party may mischaracterize the Duroc/Alamo relationship.

C. No witness or party may mention any joint defense agreements or

indemnity arrangement.

D. No witness or party may mention jury or focus group studies.

E. The witness Antonio Grande will be allowed to testify only if he first

furnishes defendants' counsel a written detailed report of all his opinions.

F. Deere may not present evidence suggesting the M & W and Woods prior

art are less relevant to invalidity than patent materials.

G. Deere may not present evidence of the defendants' financial condition

beyond the revenues directly relating to their alleged infringing products.

Until further explanation, the court has denied all other motions in limine for the

reasons stated in briefs and filed in resistance to each motion.

In particular, the court denies motions challenging testimony to be presented by

expert witnesses because their qualifications as experts are adequate, and their testimony will

probably be of considerable help to the jurors in understanding the subjects of their expert

testimony, pursuant to Federal Rules of Evidence 701–705.

IT IS SO ORDERED.

Dated this 15th day of November, 2013.

Charles R. Wolle, JUDGE U.S. DISTRICT COURT

A0018

Case: 14-1403 Document: 45 Page: 99 Filed: 07/28/2014

Case 3:09-cv-00095-CRW-TJS Document 471 Filed 12/03/13 Page 1 of 1

#### UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF IOWA

#### **CLERK'S COURT MINUTES**

PRESIDING: HONORABLE C	HARLES R. WOLLE, U.S. DISTRICT JUDGE	
Case No. 3:09-cv-00095	: Court Reporter: Terri Martin	
	: Interpreter: None	
Plaintiff(s)	: Defendant(s)	
DEERE & COMPANY	DUROC, LLC; ALAMO GROUP, INC.; BUSH HOG, INC.; and GREAT PLAINS MANUFACTURING INCORPORATED  :	
Plaintiff(s) Counsel: Roderick McKelvie, Ste	ephen Anthony, Jason Fowler, Richard Sapp, Jay Alexander and Allison Kerndt	
Defendant(s) Counsel:  Alamo & Bush Hog: Thomas Graves, Scott Hejny, Phillip Aurentz and William Graham Duroc: Craig Martin, Jeffrey Harty, David Jimenez-Ekman and Sara Horton Great Plains: Scott Brown, Michael Hurd, Matthew Walters and Martha Shaff		
Issues before the Court: Second Day of	Jury Trial	
Motion(s) for Ruling:	Ruling / Ruling Reserved	
Plaintiff's Motion in Limine [469]	Denied :	
Defendants' Motion for Various Relief [470]	Denied :	
	Defiled .	
Propadings		

Pretrial conference is held between Court and counsel from 8:29-8:46am to discuss newly filed motions [469] and [470]. Court denies motions [469] and [470]. At 8:58am, jury enters courtroom. Defendants Alamo and Bush Hog present opening statement from 9:00-9:38am. Recess from 9:39-9:50am. At 9:50am, jury enters courtroom. Plaintiff commences presentation of case-in-chief. Recess from 10:57-11:10am. At 11:12am, jury enters courtroom. Plaintiff continues presentation of case-in-chief. Jury is excused for lunch from 11:58-1:15pm. Outside the presence of the jury, Court and counsel discuss matters from 11:58-12:04pm. At 1:14pm, jury enters courtroom. Plaintiff continues presentation of case-in-chief from 1:14-2:35pm. Recess from 2:35-2:50pm. At 2:50pm, jury enters courtroom. Plaintiff continues presentation of case-in-chief from from 2:50-3:58pm. Recess from 3:58-4:15pm. At 4:15pm, jury enters courtroom. Plaintiff continues presentation of case-in-chief from 4:15-4:55pm. Court dismisses jury at 4:55pm. Outside the presence of the jury, Court and counsel discuss exhibits from 4:55-4:57pm. Court is in recess at 4:58pm, and will reconvene on December 4, 2013, at 9:00am with jury trial. Court and counsel to meet at 8:30am.

Time Start: 8:29 am Time End: 4:58 pm Date: December 3, 2013

/s/ Deborah M. Hanghian

Deputy Clerk

Case: 14-1403 Document: 45 Page: 100 Filed: 07/28/2014



## United States Patent [19]

[11] **Patent Number:** Friesen **Date of Patent:** Apr. 25, 2000

[54]	EASY CLEAN DUAL WALL DECK FOR ROTARY CUTTER	
[75]	Inventor: Henry Friesen, Niagara Falls, Canada	
[73]	Assignee: Deere & Company, Moline, Ill.	
[21]	Appl. No.: 09/118,591	
[22]	Filed: <b>Jul. 17, 1998</b>	
[51]	<b>Int. Cl.</b> <sup>7</sup> <b>A01D 67/00</b> ; A01D 75/30	
[52]	<b>U.S. Cl. 56/320.1</b> ; 56/6; 56/16.9	
[58]	Field of Search 56/16.9, 320.2,	
	56/320.1, 6, 16.7, 17.5	
[56]	References Cited	
U.S. PATENT DOCUMENTS		
	4,194,345 3/1980 Pioch et al 56/17.5	
	4,724,660 2/1988 Bowie et al 56/320.1	
	4,887,420 12/1989 Cerny, Jr. et al 56/320.2	
	F 00 F 244 4 4 00 4 N.F. C. 1	

4/1991 McCracken ...... 56/16.7

5,005,344

2/1992 Pestka ...... 56/17.5 5,086,614

6,052,980

#### OTHER PUBLICATIONS

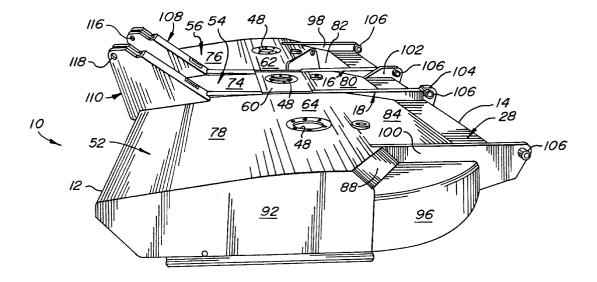
Brochure Woods Equipment Co., dated 1996-Woodsbatwing Models 3240 and 2162.

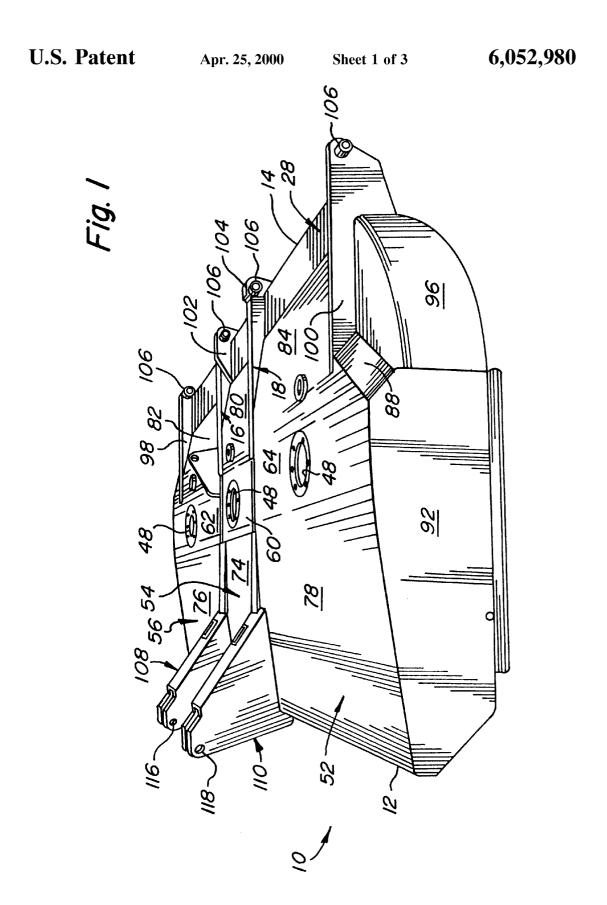
Primary Examiner—Robert E. Pezzuto Assistant Examiner—Meredith Petravick

#### ABSTRACT [57]

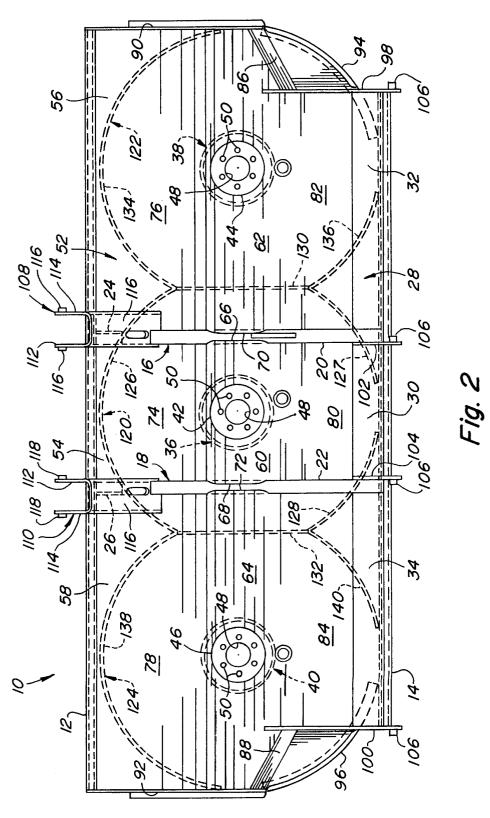
A deck for a rotary cutter includes upper and lower deck walls configured together with vertical aprons and wheel support plates at the opposite sides of the deck to form a box structure. Three gear box supports are welded within three pairs of vertically aligned holes respectively provided in the upper and lower deck walls. The upper deck wall is shaped generally convex in fore-and-aft, vertical cross section and is free of ledges formed from framework of stringers so that debris tends to fall off and water tends to run off the deck.

#### 10 Claims, 3 Drawing Sheets





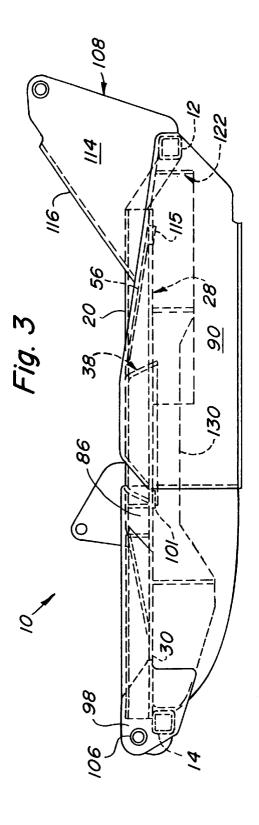
U.S. Patent Apr. 25, 2000 Sheet 2 of 3 6,052,980



U.S. Patent Apr

Apr. 25, 2000 Sheet 3 of 3

6,052,980



Case: 14-1403 Document: 45 Page: 104 Filed: 07/28/2014

6,052,980

#### EASY CLEAN DUAL WALL DECK FOR **ROTARY CUTTER**

#### Assignment

The entire right, title and interest in and to this application and all subject matter disclosed and/or claimed therein, including any and all divisions, continuations, reissues, etc., thereof are, effective as of the date of execution of this application, assigned, transferred, sold and set over by the applicant(s) named herein to Deere & Company, a Delaware corporation having offices at Moline, Ill. 61265, U.S.A., together with all rights to file, and to claim priorities in connection with, corresponding patent applications in any and all foreign countries in the name of Deere & Company or otherwise.

#### BACKGROUND OF THE INVENTION

The present invention relates to rotary cutters and more specifically relates to decks for such cutters.

During cutting/shredding of material, such as cotton corn, milo and wheat stubble, grass, etc. with a rotary cutter, debris accumulates on the top of the cutter deck. If not regularly cleaned off, the debris retains moisture which eventually results in the deck rusting out. With current style 25 decks, the structural components such as outboard stringers, gearbox saddles, plates and gussets make it difficult to clean the deck and create traps for material and/or water to accumulate. While it is known to provide decks which have debris quite easily and efficiently, these decks have been made with structural components on their undersides which interfere with the smooth flow of cut material thus making operation somewhat inefficient and thereby increasing the amount of power required to do the cutting operation.

#### SUMMARY OF THE INVENTION

According to the present invention, there is provided an improved deck for a rotary cutter.

An object of the invention is to provide a deck which is 40 easy to clean but yet has an underside free of obstructions to the smooth flow of cut material.

A more specific object of the invention is to provide a rotary cutter deck which has an upper, generally convex smooth surface from which debris tends to slide off and water will run off.

Still another object is to provide a rotary cutter deck which is constructed of upper and lower walls, the upper wall defining an upper, somewhat convex smooth surface 50 and the lower wall being horizontal and having an underside free of structural members, except for the usual material flow baffles, allowing for smooth material flow.

Another object of the invention is to provide a rotary cutter deck which is constructed of upper and lower walls 55 joined together in such a way as to allow the upper wall to be bowed or formed in the weld fixture so as to have a convex surface thus eliminating any pre-bending prior to being placed in the weld fixtures.

Yet another object of the invention is to provide a deck 60 defined by upper and lower walls which are joined together to create a central box structure having good torsional strength and wherein the thicknesses of one or the other or both of the deck walls can be altered for flexibility in the design requiring no changes in the laser programs for cutting 65 the pieces from which the deck sections are constructed nor changes in the punch tooling or weld fixtures.

#### 2

#### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a left end perspective view of the rotary cutter deck constructed in accordance with the present invention. FIG. 2 is a top plan view of the cutter deck shown in FIG.

FIG. 3 is a right side elevational view of the cutter deck shown in FIG. 2.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, there is shown a rotary cutter deck 10 designed for supporting three mower spindles in a side-by-side arrangement. The deck 10 is a weldment featuring a stiffening framework comprising front and rear tubular cross members 12 and 14, respectively, and interior, transversely spaced tubular, fore-and-aft extending, rightand left-hand stringers 16 and 18, respectively. The majority of the length of the stringers 16 and 18 is defined by 20 respective horizontal portions 20 and 22 having rear ends which overlap and are welded to the upper forward corner of the rear cross member 14, the stringer portions 20 and 22 terminating at and being joined to downwardly inclined forward end portions 24 and 26 having forward ends engaged with, and welded to, the backside of the front cross member 12.

A horizontally disposed, lower deck wall 28 includes a rectangular middle section 30, and right- and left-hand sections 32 and 34, respectively. Outer edges of the lower a relatively smooth upper surface that can be cleaned of 30 middle wall section 30 and inner edges respectively of the lower right- and left-hand wall sections 32 and 34 extend beneath and are welded to the stringers 16 and 18. The wall sections 30, 32 and 34 have respective rear edges welded to the upper front corner of the rear cross member 14. Provided in the middle of each of the lower wall sections 30, 32 and 34 are circular openings respectively receiving identical gear box supports 36, 38 and 40, these supports each being in the form of an inverted bowl inserted upwardly through a respective opening and being welded in place. The supports 36, 38 and 40 have horizontal circular tops 42, 44 and 46, respectively, with each top being provided with a central hole 48 about which is provided a circular pattern of gear box mounting holes 50.

An upper deck wall 52 includes a middle section 54, 45 which is substantially rectangular in top view, and right- and left-hand sections 56 and 58, respectively. The upper wall sections 54, 56 and 58 include respective areas 60, 62 and 64, which are convexly bowed from front to rear and provided with circular openings beneath which the tops of the gear box supports 36, 38 and 40 are located, with respective perimeters of the supports supporting and being welded to the upper deck wall sections 54, 56 and 58. Opposite outer side projections 66 and 68 of the upper deck wall middle section 54 extend above and are welded to upper inner corner locations of the stringers 16 and 18, while inner side projections 70 and 72, respectively of the right- and left-hand upper deck wall convex areas 62 and 64 are located above and welded to upper outer corner locations of the stringers 16 and 18. Thus, the upper deck wall 52, as a whole, is generally convex shaped as viewed in vertical cross section taken fore-and-aft through the centers of the holes 48, this shape being due to the fact that the middle, and right- and left-hand upper deck wall sections 54, 56 and 58 respectively include similarly sloped front portions 74, 76 and 78 which are inclined downwardly and forwardly from the convex areas 60, 62, and 64 to the front cross tube 12. Similarly, sloped downwardly and rearwardly, at the same Case: 14-1403 Document: 45 Page: 105 Filed: 07/28/2014

6,052,980

3

inclination, from the convex areas 60, 62 and 64 to the lower deck wall 28 are respective rear portions 80, 82 and 84, with rear edges of these portions being welded to the lower deck wall 28. Outer rear portions of the right- and left-hand upper deck wall sections 56 and 58 are connected to the right- and left-hand lower deck wall portions by respective downwardly and rearwardly inclined filler plates 86 and 88.

Forming opposite ends of the cutter deck 10 are vertical, front side apron sections 90 and 92, in the form of plates which extend fore-and-aft between and are welded to respective outer ends of the front cross tube 12 and respective outer ends of the filler plates 86 and 88. Rear, right- and left-hand side apron sections 94 and 96, respectively, are curved arcuately about the gear box supports 38 and 40 and have respective forward ends welded to rear ends of the front  $_{15}$ side apron sections 90 and 92. Opposite ends of the transverse rear tube 14 respectively terminate in approximately the same vertical, fore-and-aft extending planes as do respective inner ends of the filler plates 86 and 88 and, extending fore-and-aft between and being welded to outer 20 ends of the tube 14 and inner ends of the filler plates 86 and 88 are respective outer, vertical wheel assembly support plates 98 and 100, the latter also being welded to outer edges of the downward and rearward sloped portions 82 and 84. The support plates 98 and 100 have lower edges which extend downwardly along and are welded to the rear apron sections 94 and 96. In addition, the lower edge of each of the support plates 98 and 100 includes a tab 101 adjacent the forward ends of the plates, the tabs being received in and welded at slots provided in the lower deck wall 28. Mounted in axial alignment with each other at the rear ends of each of the support plates 98 and 100 and in the rear end of each of a pair of interior support plates 102 and 104 is a bushing 106, it being noted that the plates 102 and 104 are respectively welded to the sides of the stringers 16 and 18 and have 35 lower edges extending over and being welded to top and rear sides of the rear cross tube 14.

The deck 10 further includes right- and left-hand hitch supports 108 and 110, respectively, in the form of channel outer sides 112 and 114 joined along one of their respective edges by a web 116. The inner sides 112 are welded to inside surfaces of forward end portions of the stringers 16 and 18, and have lower edges welded to the middle upper deck wall section 74, while the outer sides 114 have lower edges 45 planar, horizontal deck wall; an upper deck wall including a welded to the right- and left-hand outer upper deck wall sections 76 and 78 and have respective tabs 115 that project downwardly through, and welded in, slots provided in the right- and left-hand lower deck wall sections 32 and 34, respectively. Axially aligned hitch structure mounting holes 116 and 118 are respectively provided in the supports 108 and 110.

The horizontal lower deck wall 28 presents an uninterrupted surface for permitting the free flow of cut material, however, provided for guiding the cut material are center, 55 and right- and left-hand baffle assemblies 120, 122 and 124, respectively, welded to and depending from the lower deck wall 28 and forward portion of the upper deck wall 52. Specifically, the center baffle assembly 120 includes a center front baffle section 126, and right- and left-hand rear baffle sections 127 and 128 arranged arcuately about the center gear box support 36, with opposite ends of the front baffle section 126 terminating at and being welded to forward ends of right- and left-hand, fore-and-aft extending baffle sections 130 and 132, respectively. Front and rear ends of the right-hand rear baffle section 127 respectively terminate at and are welded to the rear end of the baffle section 130 and

to the front side of the cross member 14, while front and rear ends of the left-hand rear baffle section 128 respectively terminate at and are welded to the rear end of the baffle section 132 and the front side of the cross member 14. It is to be noted that the cutter blades would sweep overlapping paths that extend below lower edges of the baffle sections 130 and 132.

The right-hand baffle assembly 122 includes a front baffle section 134 having its left-hand end joined to the forward end of the right-hand baffle section 130, and having its right-hand end joined to the right-hand front side apron section 90 at a location just forwardly of the right-hand rear side apron section 94. A rear baffle section 136 has a left-hand end welded to the rear end of the baffle section 130 and a right-hand end terminating at and being welded to the rear cross member 14 at a location adjacent a left-hand end of the apron section 94. Similar to the right-hand baffle assembly 122, the left-hand baffle assembly 124 includes a front baffle section 138 having its right-hand end joined to the front of the left-hand baffle section 132, and having a left-hand end joined to the left-hand front side apron section 92 at a location just forwardly of the left-hand rear side apron section 96. The baffle assembly 124 also includes a rear baffle section 140 having its right-hand end welded to the rear end of the baffle section 132 and its left-hand end welded to the rear cross member 14 at a location spaced inwardly from the rear end of the left-hand rear side apron section 96.

It will be appreciated that the upper and lower deck walls 28 and 52 cooperate with each other, the filler plates 86 and 88, the apron sections 90 and 92 and the wheel assembly support plates 98 and 100 to form a box section having torsional rigidity. Further, it will be appreciated that the deck 10 can be made medium or heavy duty by merely altering the thickness of the material from which the lower and/or upper deck walls 28 and 52, respectively, are made, these simple changes allowing for flexibility in the design requiring no changes in laser programs, punch tooling or weld

While the disclosed deck 10 is designed for using three members each having substantially triangular, inner and 40 spindles, single spindle, multi-spindle rigid and flex-wing cutters can also be made using the dual deck wall design concept.

What is claimed is:

- 1. A rotary cutter deck comprising: a lower, substantially central portion elevated above said lower deck wall, and front and rear portions respectively sloped downwardly and forwardly, and downwardly and rearwardly from said central portion into engagement with, and being secured to, said lower deck wall; and right- and left-hand end wall structures respectively being joined to right- and left-hand ends of said lower and upper deck walls to thereby define a box section having torsional stiffness.
- 2. The rotary cutter deck defined in claim 1 wherein said right- and left-hand end wall structure include right- and left-hand, fore-and-aft extending apron members.
- 3. The rotary cutter deck defined in claim 1 and further including a framework including front and rear transversely extending cross tubes; said upper deck wall having a front edge welded to said front cross tube; and said lower deck wall having a rear edge welded to said rear cross tube.
- 4. The rotary cutter deck defined in claim 3 wherein said framework further includes a pair of transversely spaced stringers, each extending fore-and-aft between and having opposite ends fixed to said front and rear cross tubes; and said lower deck wall being secured to an underside of said stringers.

Case: 14-1403 Document: 45 Page: 106 Filed: 07/28/2014

6,052,980

5. The rotary cutter deck defined in claim 4 and further including first and second hitch assembly supports fixed to a forward side of said deck and respectively being secured to said pair of transversely spaced stringers.

6. The rotary cutter deck defined in claim 1 wherein said 5 lower and upper deck walls cooperate to present an upwardly facing deck surface which is smooth and substantially obstruction free from front to back, whereby material may slide or easily be washed off said deck surface, and water will run off said deck surface.

7. The rotary cutter deck defined in claim 1 wherein at least one cutter drive gear box support extends between and is welded to said lower deck wall and the central portion of said upper deck wall.

deck wall includes central and right- and left-hand sections which cooperate to define said central and front and rear portions; said central section having right- and left-hand edges respectively fixed to inner surfaces of said pair of transversely spaced stringers, and said right- and left-hand 20 sections respectively having inner edges fixed to outer surfaces of said pair of transversely spaced stringers; and said central portion being at a level commensurate with a top surface of each of said pair of transversely spaced stringers.

9. The rotary cutter deck defined in claim 1 wherein 25 middle, right-hand and left-hand sets of upper and lower, axially aligned circular gear box support openings are respectively provided at transversely spaced locations in

6

said central portion of said upper deck wall and in said lower deck wall, with said lower circular gear box support openings being larger in diameter than said upper circular gear box support openings; a gear box support associated with each set of upper and lower circular openings and defined by a side wall, in the form of a truncated cone having its small end up and closed by a top wall, with the side wall of the gear box support being located in the lower circular opening and there being welded to the lower deck wall, and with the 10 top wall being disposed within the upper circular opening and there being welded to said upper deck wall, whereby said box section is strengthened by said gear box supports.

10. A rotary cutter deck comprising: a horizontal, substantially planar, lower deck wall having first parallel front 8. The rotary deck defined in claim 4 wherein said upper 15 and rear, transversely extending edges; an upper deck wall which, as viewed from the side, is bowed upwardly between second parallel front and rear, transversely extending edges; said upper deck wall engaging, being welded to and having its rear edge located downwardly and forwardly beyond said front edge of said lower deck wall; said rear edge of said upper deck wall engaging and being welded to said lower deck wall at a location spaced forwardly of the rear edge of said lower deck wall; and right- and left-hand end wall structures being joined to right-hand left-hand side edges of each of said upper and lower deck walls thereby forming a box section having torsional stiffness.

#### **CERTIFICATE OF SERVICE**

I hereby certify that on July 28, 2014, a true and correct copy of the foregoing was filed and served via the Court's CM/ECF system. I further certify that I caused a copy to be served by electronic mail upon the following:

Craig C. Martin
Sara Tonnies Horton
David Jimenez-Ekman
Steven R. Trybus
Michael A. Scodro
Jenner & Block LLP
353 North Clark Street
Chicago, IL 60654
(312) 923-2776 (Telephone)
(312) 840-7776 (Facsimile)

Counsel for Appellee Duroc, LLC

Scott W. Hejny Phillip Aurentz McKool Smith, P.C. 300 Crescent Court Dallas, TX 75201 (214) 978-4206 (Telephone) (214) 978-4044 (Facsimile)

Joel Lance Thollander McKool Smith, P.C. 300 W. 6th Street Austin, TX 78701 (512) 692-8735 (Telephone) (512) 692-8744 (Facsimile)

William W. Graham Graham Ervanian & Cacciatore, LLP 317 Sixth Avenue, Suite 900 Des Moines, IA 50309 Scott R. Brown
Matthew B. Walters
Hovey Williams LLP
Suite 1000
10801 Mastin Blvd.
84 Corporate Woods
Overland Park, KS 66210
(913) 647-9050 (Telephone)
(913) 647-9057 (Facsimile)

Counsel for Appellee Great Plains Manufacturing, Inc.

(515) 282-0230 (Telephone) (515) 282-4235 (Facsimile)

Counsel for Appellees Alamo Group, Inc. and Bush Hog, Inc.

/s/ Roderick R. McKelvie
Roderick R. McKelvie

Dated: July 28, 2014

**CERTIFICATE OF COMPLIANCE** 

1. This brief complies with the type-volume limitations of Fed. R. App.

P. 32(a)(7)(B)(i) because this brief contains 13,992 words, excluding the parts of

the brief exempted by Fed. R. App. 32(a)(7)(B)(iii) and Federal Circuit Rule 32(b).

2. This brief complies with the typeface requirements of Fed. R. App. P.

32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this

brief has been prepared in a proportionally spaced typeface using Microsoft Word

using 14-point Times New Roman font.

/s/ Roderick R. McKelvie

Roderick R. McKelvie

3